/295/ Preface

114 121 In the chapters to follow, I propose to publish part of the results obtained in the course of the expedition that I undertook in the Bolivian and Argentinian Chaco in my capacity as director of the Institute of Ethnology of the University of Tucumán.

114 [101] This expedition took place from February to June, 1929. Its itinerary was the following: Having left Tucumán, I went by railroad to La Quiaca where I stayed for several days, making observations on the more or less half-breed natives of the region. From La Quiaca I went to Tarija, where I remained longer than I might have wished because of the suspicions my trip raised at the time of the Paraguayan-Bolivian conflict.

114 101 103 After a 15-day stop I left Tarija to reach the Chiriguano tolderías of the upper Pilcomayo. I crossed the village of Santa Ana, then the Alta del Cóndor, the Narvaez River, the post of San Diego, passed five kilometers from San Luis (Entre-Ríos) to stop at the Cuesta de San Simon, where I found the first Chiriguano. Once having crossed the Cuesta de San Simón I quickly reached the Salado River, then the Chiriguano villages of Timboy [126] (Saladito). It was there that I made my best acquisitions of pottery and where I collected the oldest objects. The inhabitants [178] of these rancherías, who live relatively far from the highway from Argentina to Santa Cruz, have preserved the traditions and culture of their ancestors better than their racial brothers have. From Saladito I reached the village of Itaiti and then Salado Grande, [361] in order /296/ to reach the Pilcomayo at the confluence with the Salado. There, the Chiriguano villages are large and numerous. The most interesting are those of Nawirenda, Ibopeytí, and Yumbía.

After stopping for some time in this place, I continued my trip toward Huacaya and the mission of San Pascual de Boicovo.

In one day I went from Boicovo to Cuevo, going by way of the mission of Santa Rosa.

[199] [178] From Cuevo on I was in the mission of Ivu, which is without doubt the one where the old Chiriguano customs have undergone the fewest modifications.

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114 101 103 From Cuevo I left for the northwest toward the Parapiti River region. I crossed this river near Pipi. After stopping in that village, I followed an Indian path which led me to Canuriri, to the house of my good friend Captain Kurupedyri. I spent a week with him and left him only to explore the whole Caipipendi valley, visiting all the Indian villages one after another. At Caipipendi itself I made fruitful excavations and collected interesting myths.

The limit of my trip toward the north was the little city of Charagua.

I devoted the last part of my trip to more or less long stays in the Franciscan missions of Tarairi, Tigüipa, Machareti, and Ivo.

Before going back to Argentina I made an excursion into the Igüembé valley as far as the village of Mauri.

115 127 The last two weeks of my expedition were devoted to the study of the Chané Indians who live near Aguaray in the Salta Chaco (Argentine Republic).

Previously I had been obliged, for various reasons, to stop at Oran for a month. I took advantage of this to make collections among the Ashluslay Indians who come there for the sugar-cane harvest.

In this volume I shall publish only the results of my expedition which bring new facts and details to light. Therefore the chapters I devote to the Chiriguano must not be considered an exhaustive study of their culture, but simply as a contribution. Chiriguano culture has been the object of four important works, two of which are by ethnographers of great authority (1). /297/

1. Nordenskiöld (6, 7, and 10) and Rivet (1) /the underlined numbers following an author's name refer to the boldface numbers in the bibliography/. Campos's monograph on the Chiriguano, which I shall often have occasion to cite, is only a recompilation and reorganization of the manuscript notes left by the Italian missionary, the Reverend Father Doroteo Giannecchini. This work is excellent in many respects. As for the book of the Reverend

[Ref. cont.]

Father Bernardino de Nino. It is only a translation of Campana's article, filled out with copious borrowings from Conrado's work. Nevertheless the Reverend Father Bernardino de Nino added many very interesting details to the texts that he reproduces, which make consultation of his Etnografía chiriguana indispensable.

My aim was to complete the work of my predecessors and to get together for the Museum of Tucumán a collection which would be truly representative of the last of the cultures which formerly flourished within the limits of the old gobernación of Tucumán. My Chiriguano collections, along with those collected by Nordenskiöld, are, I believe, the most complete ones from this region that exist in the world. They bear witness, I hope, to the richness of this area from an ethnographic point of view, a richness which has been left unexploited and which will disappear in a few years.

May these pages demonstrate that every culture is a whole complex, so varied, that no ethnographer can study all its details in the course of a single trip. It is not useless to go back where others have preceded you, for, whatever their merits may have been, the material cannot be exhausted in one time.

There remains the paying of a debt of gratitude by thanking Doctor J. B. Terán and Doctor J. Heller, who, as rector and vice-rector of the University of Tucumán, gave me the means to bring about this trip. The new rector of the University, Doctor J. Prebisch, granted me the sizable funds which publication of the results of this expedition required and supported constantly the Service d'Ethnologie of my Institute. I am eager to make known to him here how grateful I am.

I wish to express my thanks again to all those who helped me in the course of my trip: first and foremost the Franciscan missionaries who gave me generous hospitality and helped me as much as possible; my debt is particularly great to the Reverend Father Jerónimo Ferrari, thanks to whom I was able to carry out without damage the transportation of my collections from the upper Pilcomayo to Cuevo; to Father Angiussi who received me as frequently in his Ivo mission. Neither do I wish to forget Fathers

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Luis Martinelli, Dionisio Polverini, Juan Nicolai, and Honorato Carinari, who backed me up on various occasions. The Reverend Father Enrique Biagini did me a service for which I was very grateful by committing me to the care of all the missionaries of the Chaco.

The prefect of Tarija, Colonel Núñez del Prado, facilitated my trip /[illegible]/ by giving me a safe-conduct which was particularly useful to me in dealing with the authorities of eastern Bolivia. This man, courteous and intelligent, has just died on the battle-field. I wish to salute his memory with gratitude.

My companions Messrs. Bury helped me during my whole trip and rendered invaluable services which I remember gratefully, as well as the important aid given me by Messrs. Attié of Tarija.

I received cordial hospitality from Mr. Bonardi of Yacuiba and from Mr. Vicente Costantini, whom I thank here.

Mr. Alberto Tonejón of Ibopeyti showed himself to be a host full of intelligence, and his intervention on my behalf with the Indians was very useful to me.

I should show myself ungrateful and unjust if I did not here express all I owe to the Indians themselves, whose reception, once the first mistrust was dissipated, was always so cordial, so generous. Here I should like to cite the name of my old friend, Captain Kamapadyí, of Caruruí, who was a courteous and kind friend to me and who made my stay in the Caipipendí valley so pleasant. Some day may I come back to my Chiriguano friends with mules loaded with knives, cloth, and beads, and thus fulfill the wishes they expressed so often to me.

CG 175 484 /313 cont./ The exploration of Alvar Núnez Cabeza de Vaca, continued by his lieutenant, Francisco de Ribera, is a second example that shows very well that the excursions of the Guarani did not constitute exceptional deeds that were extremely dangerous to accomplish.

Having arrived at a certain distance from the spurs of the Andes, the Guarani entered the territory of the Chané Indians.

It was in one of these numerous warlike ventures of the Guarani that the Portuguese adventurer Alejo García took part with several other comrades.

CG 175 169 484 [162] I am convinced that the 2,000 (according to Díaz de Guzmán, p. 26) Guarani whom this adventurer accompanied as far as Peru formed only one of the numerous bands of warriors of this nation who, each year, from every point of the Guarani territory, used to cross the Paraguay River, then the deserts of the Chaco.

CG 114 175 169 484 174 Ruy Díaz de Guzmán, who reports this event, sees things in too simple a light. A migration is not made at one time nor in one year. That of the Guarani lasted perhaps several decades, without, however, necessarily speaking of centuries. Twenty or thirty years must have sufficed for the nucleus of the Chiriguano nation to form between the upper Pilcomayo and the Guapay River. The penetration of the Guarani into /314/ the Chaco took place in a rather chaotic and incoherent fashion. The conquistadors were continually meeting on their route Guarani groups who, for one reason or another, could not succeed in joining their brothers established beyond the Chaco. These Guarani, who blazed the trails followed by the invaders, were valuable guides for the Spanish adventurers, and they were the ones who led them to Peru. For long years there were uninterrupted communication and incessant coming and going between Paraguay and the eastern slope of the Bolivian Andes.

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for they returned, fleeing." /Translated from the Spanish./

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They agree /Plate IV appears here/ /315/ on the essential fact and on the approximate date of the event. This coincidence between traditions whose sources are so different and which have been collected independently from each other in regions as far apart as this leaves absolutely no doubt about the purely historic nature of this invasion. Nordenskiöld (5, pp. 70-77) in the course of his last trip into the Chaco (1913-14) was able to study the ruins of the small forts of Cuzco-Toro (today Incahuasi), which always stand at the edge of Chiriguano country. By their style they belong to the Inca period. Nordenskiöld (7) and I had thought that García's expedition was the first in date that the Guarani had launched toward Peru. In reality, other Guarani emigrations preceded it by several years, as Gandía (2, p. 30) (1) succeeded in /316/ establishing.

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1. Gandia (2, p. 30, note 1) cites various passages taken from old, reliable documents which seem to indicate that García's expedition had been preceded by other previous migrations which, starting from Paraguay, had ended up in the establishment of Guarani groups beyond the Chaco. Thus the Tarapecoci recounted to Francisco Ribera how in ancient times, before García, the Guarani had come to plunder and massacre them.

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A Relación anónima /Anonymous Account/ of 1545 (pp. 310-311) reports in these words the remarks of some Chané Indians who were questioned by Alvar Núñez Cabeza de Vaca at the time of his expedition on the upper Paraguay: "among the people found there are certain yndios /Indians/ who are from the interior country, those of the chane people

[Text Continues on P. 36]

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/fn. 1 cont./ said chanes each pueblo had its name, although all were one race; asked how they came to speak guarany and where he knew the said garçia, he said that the reason he spoke goarany was that in times past, before garçia came from brasil /Brazil/ to the said guaranys, there was a great gathering of said guaranys in the port called ytatyn, in order to go to search for the metal, and that passing through their land at night they came upon their houses and killed many of them and took their women and children and brought them to the said port of ytatyn, and while they were slaves of the said goaranys in the said port, the said garçia passed through there, with whom he and two other brothers went in search of said metal with the said guaranys; asked if he went and traveled with the said Garçia until he returned, he said yes; asked how far the said garçia had gone and where he got the metal that he carried, he said that he had gone as far as the race that they call payçunos, and that the chanes and the said payçunos gave him the said metal and that he had returned from there because he learned that a race called çorocotoquis were having a great gathering against the said garçia and those who went with him, and he said that they returned to get more xrisptianos in order to return with them for the said metal ..." /translated from the Spanish/.

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This testimony and some other indications corroborate Gandía, who in this study gave evidence not only of vast erudition but also great sagacity. There is nevertheless one point on which I do not agree with him. The documents alluding to the migration of the Guarani all speak of it as a recent event whose details were

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/fn. 1 cont./ still present in everyone's memory. Even if we accept Garcilaso's version and make that event go back to the reign of Tupac Inca Yupanki, it is still no less certain that it could only have taken place in the last decades of the 15th century. It is indeed at this time, according to Balboa, that the emperor Tupac Inca Yupanki would have reigned. (See Nordenskiöld, 6). In this case the first Guarani migration would have preceded García's trip by about 50 years. Why then does Gandía, who himself gives us this figure, consider it more probable that this invasion took place more than a century before the Conquest? When I personally submitted to Mr. Gandía the reservations I had on the subject of the date he was assigning to the establishment of the Guarani at the foot of the Andes, he answered that he had taken as a basis for this evaluation a passage from Lozano (Descripción chrorográfica...) and Mendiburn (Diccionario Histórico Biográfico del Perú...). According to the latter the Inca Yupanki would have died in 1453. I shall reply to this objection by stating that the evidence of Lozano, who was satisfied to copy Garcilaso, has no value; and as for Mendiburn's calculation, I do not grant him any credence.

One single fact remains certain in this controversy: The Guarani had begun their migratory movement toward Peru some years before García's adventurous trip.

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/316/ establishing. Neither was Alejo García's expedition the determining cause of the great migration of which Díaz de Guzmán (p. 29) speaks thus:

"Following these events (García's trip) the Indians of the Province of Paraguay met together with their caciques and

1: Métraux --42 E-5 (1929) 1930 SF10 Chiriguano SF10
Guarani SM4

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there, for the Indians are excellent farmers. In the course of the war with these populations the Indians of his tribe, he added, destroyed and depopulated numerous villages, but doubtless they had already rebuilt them. He was asked whether there were large rivers and springs along the way. He answered that he saw rivers, but that they did not have much water; however, there were other very deep ones, springs, lagoons, game, deer and tapirs, fruits and honey. He was asked whether at the time his people made war on these tribes he had seen any who had silver and gold. He said that in the villages they pillaged there were many silver and gold plaques, /320/ labrets, ear ornaments, bracelets, crowns, axes, small vessels; and that it was all taken away from them when they were put to rout. Those who escaped were able to take along some silver plaques, beads, labrets; but the Guaxarapo stole them when they tried to pass through their territory and killed them. Those who settled in the bush had a few, and he had heard it said that at the present time it was the Xaray who possessed this silver. He declared he had seen the Xaray, when they war upon the Indians, take out silver plaques which they had carried away and plundered in the interior lands."

Against this bundle of proofs attesting to the recent character of the Guarani migration, what is the value of Garcilaso de la Vega's vague affirmation (Vol. II, pp. 279-281) which some people want to oppose to it? According to this kind narrator, the Inca Yupanki would have undertaken the conquest of the Chiriguano country for the virtuous purpose of converting them to the good natural religion of the Peruvians. The Chiriguano would have been veritable monsters, feeding on human flesh, uniting by chance, living without fire or law, burying the bones of their dead in caves or in the hollows of trees. In a word, except for anthropophagy and the mention of the maloca (1), there is nothing in the picture of the

1. The description Garcilaso (Vol. II, p. 281) gives us of the large house of the Chiriguano is perfectly exact and very

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interesting: "they make a very big dormitory and, within it, as many small rooms as there are residents, and so small that they do not have room for more persons, and it is enough for them, because they do not have furniture, nor do they have wearing apparel and hence they go about naked." /Translated from the Spanish./ These facts agree on every point with those of the Relaciones geográficas, etc. (Vol. II, Plate CIV) and of Lizárraga (Vol. I, p. 259) on the same subject. The Guarani, just like the Tupinamba and other Tupi tribes, lived in maloca, gigantic halls capable of containing more than 150 persons and which often in themselves formed the village. The existence of this type of dwelling among the Chiriguano in the 16th and 17th centuries constitutes new proof for the recent character of their migration. In the 18th century we find them already in possession of the small rectangular house which they still have now and where one single family lives. (See Métraux, 2, p. 51.)

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novelist Garcilaso which might allow one to suppose that he really knew who the Chiriguano were. As for this conquest by the Inca, it would have been barely an attempt at conquest... Garcilaso confuses the Chiriguano with all the tribes of the eastern slopes of the Andes whom he had vaguely heard mentioned. Let us note that he is the only one to attribute this expedition to the Inca Yupanki, while the other chroniclers, better informed, are satisfied to say that the Inca Yupanki made an expedition against the Antis, probably around Cuzco. Unfortunately the vogue this pleasant writer enjoyed at a time when the history of America was still in limbo bluffs some modern critics into believing him, and they go so far as to prefer one of his unwarranted affirmations to the serious /321/ and precise evidence of chroniclers who get their information at first hand and from reliable sources.

C 114 127 175 648 [101]

/332 cont./ Permanent
villages were there under the command of hereditary caciques. The middle course of the Parapití formed their boundary to the east. In the 18th century the Chiriguano constituted the most important and remarkable nation of the western Chaco. The statistics concerning them vary a great deal: the figures, given with their usual exaggerations, vary between 41,000 and 15,000 warriors. The Chané are included in this number, which completely removes all value from these statistics." (Kersten, pp. 68-69.)

Today the boundaries of the Chiriguano have stayed about the same. But even though they inhabit a territory whose extent has varied little, their situation has none the less undergone great changes. Several thousand half-breeds from Tarija, Santa Cruz, and Chuquisaca have settled inside this area that we have defined. A Chiriguano frontier no longer exists, but only remains of villages and small groups which still mark the former extent of the tribe. On the other hand, the number of Chiriguano has diminished terribly and is diminishing each day, so that a few years from now the true habitat /333/ of the Chiriguano will be contained between the Parapiti and the Pilcomayo and will be reduced to the former Franciscan missions and to several valleys of the Precordillera, such as those of Caipipendí and Igüembé (1).

1. Some historians not well informed about the ethnic geography of South America have claimed that in the 16th century the Chiriguano lived well beyond the boundaries I have indicated. One of them (Dr. Fulgencio Moreno) went so far in this direction that he attributes to the Chiriguano the possession of a large part of northwestern Argentina and pushes this fancy to the point of locating them almost as far as in the province of Córdoba. Mr. Coni in an excellent monograph, documents in hand, has done good justice to these bold allegations and has demonstrated that these hypotheses were without foundation.

1: Métraux--62 E-5 (1929) 1930 SF10 Chiriguano SF10
Guarani SM4
Tupi Guarani SL6

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The archeological arguments of those who believe in a vast extension of the Guarani into Argentina rest on the occurrence of burials of adults in urns in the provinces of Salta and Jujuy. Recently I conducted excavations in several pre-Hispanic cemeteries of this region (Candelaria department, Salta prov.), and I was able to satisfy myself that the peoples who left us these great necropolises had nothing in common with the Chiriguano from a cultural and anthropological point of view. The funerary urns I brought to light are entirely different from those of the ancient Guarani, and the funerary furnishings include no piece which could be attributed either closely or distantly to the Guarani.

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Burials of adults in urns is not in any way characteristic of the culture of the Tupi-Guarani Indians, and, I might say, even the opposite. Already in 1905 Outes (1) in a very well-documented monograph had proved that the cemeteries of Rosario de Lerma and San Pedro de Jujuy, which Boman (1) considered as Guarani, in no way constituted proofs of a Guarani migration into northwestern Argentina. Nordenskiöld (10, pp. 184-189) and myself (Métraux, 2, pp. 271-276) have resumed study of this question, and our results entirely confirm those of Outes (1). Therefore, as much from the historic as from the ethnographic point of view, boundaries other than the ones I have indicated could not be assigned to the ancient Chiriguano.

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Chapter II

Agriculture

241 The Chiriguano, like the Guarani and the Chané, their ancestors, are excellent farmers, and the working of the soil represents their principal occupation and their great concern.
243 For them corn is of prime importance; it constitutes the basis
[273] of their diet, for it enters into the preparation of most of their dishes and in addition gives them their preferred drink, chicha or kāwi.

[132] The sandy lands of the western Chaco and its climate,
[134] hot and dry a great part of the year, but also rainy during the summer months, seem to be particularly suitable for this grain. I have never seen such beautiful fields of corn anywhere. The ears are large, well filled out /334/ with kernels, and extremely tasty. The Bolivian half-breeds and settlers who are coming in greater and greater numbers to take the place of the Indians devote themselves like them to the growing of corn, which, with cattle-raising, is their main resource.

● 114 My trip to the Chaco, which took place from the month
243 of February to the month of June, did not give me a chance to
[101] be present at the sowing which is done at the beginning of the rainy season. For many details I shall therefore be forced to
[127] refer to Corrado (pp. 42 and 48), Campana (pp. 96-98), Nordenskiöld (2, pp. 181-184, and 10, pp. 23-24), to Nino (pp. 237-241), and Rosen (1, p. 205).

241 When a Chiriguano wishes to cultivate a new piece of
243 ground for himself and his family, he scours the environs of his village looking for a spot which may suit him and which is, in addition, easily irrigable. This condition is generally fulfilled by the lands at the foot of a hill or rising ground. The *rain water which pours down there assures them of fertility.*

/339 cont./
276 consumption was limited (1).
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1. Father Giannechini (Diccionario Chiriguano-Espagnol, etc., pp. 169-170) gives us very interesting details on this topic. Formerly, says he, tobacco was reserved for magicians
[249] and adults. He states that even today where its use is most widespread it is cultivated on only a very small scale. The Chiriguano do not have the patience to let it ripen and dry it over the fire in order to be able to smoke it.

[755] When they were called to a sick person, the medicine men used to put themselves in a trance by smoking ever so much. By this means they discovered the author of the illness and gave him battle.

[789] We shall see farther along (p. 76) the role of tobacco in the magical ceremonies intended to make rain fall.

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22 At harvest time I visited the lands cultivated by the
[114] Indians of the Caruruti region in Caipipendi valley. From the end of February to the month of April, the Indians rarely spend the day at home. Most of the time they go to settle down in their fields, leaving the village as soon as the corn begins to ripen, not to return until the /340/ end of the harvest. The
[351] house of the absentees is made safe from all foreign intrusion by thorn hedges which they raise all around or only in front of the door. The latter can also be closed by a cot or bedstead, which they put up against it and anchor solidly (Fig. 6). 1/A

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221 This temporary migration of the whole population of a village to the fields sometimes made my job as a collector rather
123 difficult. It /Fig. 7 appears here/ often happened that I found
[421] myself in nearly empty villages. The rare Indians who had remained there refused obstinately, and rightly, to sell me the objects which interested me, if they belonged to an absent person.

1/A [Fig 6 appears on p. 69 -- Analyst]

/356 cont./

252 no preparation other than constant stirring in order not to be burned. This food takes the place of bread for the Chiriguano, who like to munch these crunchy and appetizing kernels. They provide themselves with it when they go on a trip.

Atipúi pounded in a mortar and passed through a sieve gives atši, a brownish flour which has an excellent taste. Atši is also prepared differently: kernels of corn are reduced to a flour which is roasted in a terra-cotta roaster or in a wide potsherd. According to Nino (p. 246), the name atikúi would be given to the kernels of roasted corn made into flour after being put through a sieve and ground until pulverized. The same missionary reserves the term atši for roasted flour obtained from the residue left by kernels which have been treated in the following way: after letting them soak in water all night, they are poured into a sieve the next morning. When the water has drained off, they are pounded in a mortar. This flour is now sifted, then roasted; cooked in water, it is the dish the Chiriguano call muintí or huinti. Atši then would be made with the residue from the muinti flour, which is ground again, then roasted like it, but first mixed with salt or pimento. I [122] have often eaten roasted corn flour which the Indians told me was atši, but I could never tell that it was seasoned. The Chiriguano give the name abatikure to the corn bran.

This is how muintimimo is prepared: kernels of corn are /Plate XIII appears here/ /357/ put to soak all night. The next morning they are ground and sifted in an urumpé (sieve with very fine mesh). The flour is poured into a muitero [415] (Plate XIII, 1 and 2). This utensil is a terra-cotta basin whose bottom is pierced with holes like a skimmer (1). The flour is

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1. Linné (2, Map 1, p. 23) has given us the distribution of vessels with perforated bottoms throughout America. The enumeration he makes of them is very complete; yet it lacks mention of La Rioja in the Argentine Republic where Boman (5, p. 17) discovered fragments of vessels whose bases were entirely perforated like a sieve.

[Text Continues on P. 104]

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262 [252] The Chiriguano call kumanara a leguminous plant, wild, which resembles the yuca and which can serve as food after being boiled. They resort to it only when pressed by hunger. The word designating this plant has a strange resemblance to [192] the name of the batata in the Quichua dialects of Ecuador and northern Peru (Rivet, 3, pp. 583-590). It is perhaps a question of a Quichua word introduced into the Chiriguano language to designate a plant of which they did not have the equivalent in their original homeland. The case is nevertheless rare, and one can wonder if it is not a simple coincidence.

[222] [171] Neither do the Chiriguano look down on honey, although they do not seek it with the passion of their cousins, the Kainguá. What I tasted among them was contained in thin honeycombs having the consistency of cardboard. It had a pleasant taste.

222 784 [176] Any Indian who goes in search of honey (ei) must not make his intention known to anyone and, if he is asked where he is going, he must answer: "To look for wood." If you do not take these precautions, the protecting spirit of the honey is warned of your plan and hides the honeycombs he guards (Diccionario Chiriguano-Español, etc., p. 86).

222 114 [252] The missionary Corrado (p. 43) assures us that grasshoppers, cicadas, the larvae of bees are that many delicious dishes for the Chiriguano. He adds that these insects are roasted. Nino (p. 247) reproduces the statements of his predecessor and completes the list of strange foods by adding /363/ ants, lizards, leaves of the cucurbitaceae, melted tallow, etc. Personally I [171] have never seen the Chiriguano touch these dishes strange to our palates, but I am all the more inclined to believe these two missionaries that the tastes they indicate are actually those of the Indians in other regions.

262 252 [178] Already in the 16th century the Chiriguano passed as snake lovers, even of poisonous species. They cut off the head and tail, skinned them, and roasted pieces of them on live coals. They used to eat them with pimento. No doubt the Spaniards confused snakes with iguanas, which even today the Chiriguano justly like (Lizárraga, Vol. I, p. 260).

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It is not so easy as one thinks to observe in detail the preparation of kāwi, and I am still at a loss to describe the stages in their exact sequence. This difficulty is due to the fact that kāwi is prepared over several days (generally three or four), and it is /Plate XV appears here/ /367/ difficult to be on the spot all the time so as not to miss any detail. Besides, as different families do not begin to prepare kāwi at the same time, confusion results; and it is hard to know at what point of the operation one finds oneself. Apparently I am not the only one to have come up against this obstacle, for it is enough to read the various descriptions devoted to this important occupation to become aware that they are far from agreeing.

● [114]

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At the moment when the water is at the boiling point in the big vats, the burning pieces of wood and the live coals are scattered, and the corn flour is poured in, being stirred vigorously so that it will not form lumps. While this operation is performed, other women have pounded fine a certain quantity of corn, sifted it, winnowed it to rid it of any impurity, then roasted it in a large potsherd. As this flour is taken off the fire, the women chew part of it and spit this into a calabash. This paste impregnated with saliva is called temiṡu. According to Nino (p. 248), the Indian women mix the temiṡu with the corn broth which is cooking in the vats and with which they fill a pot. The woman who busies herself with this mixture (umopirai) allows it to fall back in from a certain height "to give it sweetness."

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Fig. 22. Sticks for stirring the kāwi while it is cooking. No. 1 comes from Tigūipa; No. 2 from Ivu; Nos. 3 and 4 from Salvador (upper Pilcomayo). (1/2 nat. size.)

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De Molles, y de murta bien obrado,
Seguro que bebian casi arroba,
Que media á cada cual le estaba dado."
/The wine of maize and of algarroba,
Of Molles, and of myrtle well worked,
It is certain that they drank almost
an arroba,
The measure which was given to each
one./

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[123]
[114]

Kāwi is too respected a drink to be drunk in any old way. Etiquette requires one to comply with certain rules if the honor of participating in a drinking bout is done you. I sometimes had a chance to be invited to these festivities, and on such an occasion I was able to make the following observations which I am setting down just as I noted them in my field notebook: The men are seated in a circle on chairs or benches. The women squat behind them, on skins spread out on the ground. The kāwi is brought in vessels shaped like bulls, and one of them is put down at the feet of the "captain." The girl who has brought it fills a small calabash and offers it to the "captain," who empties it. Next he serves me and gives the vessel back to her. He does the same with my neighbor, then with several of the guests. Then he hands the calabash to his wife and goes to sit down. The latter serves the rest of the men present.

[554]

A second vessel, brimming over with kāwi, is put this time before another Indian who perhaps is held in some esteem. He drinks first, then busies himself with his companions. Two large calabashes are then given over to the women, and from that moment on, the distribution no longer seems to follow any order. Men and women drink and serve their neighbors without obeying any rule of decorum other than not to forget other people. They acquit themselves perfectly in this duty of politeness, and nobody is neglected, not even the very small children, who take alarming quantities of kāwi.

/378 cont./

412 The specimen I am publishing here was still giving good
●114 service to its owner, who gave it to me with regret and only
171 for a large sum of money. The presence of the eared ax among
178 the modern Chiriguano invalidates the allegation of Nordenskiöld (14, p. 120), who places it among the cultural elements which have completely disappeared in South America. It survived
[181] thanks to the prodigious conservatism of the Indians. I am convinced that several of the objects whose disappearance is attested to by Nordenskiöld will perhaps be found in some tribe now living, when we have more abundant ethnographic material from South America than we now have at our disposal.

412 Another very interesting peculiarity of this ax is the bent
171 shape of the handle, to which the blade is securely fastened with leather thongs. The distribution of the bent-handled ax has been traced by Linné (2, p. 202). Few tribes of South America have continued to use it up to our day. They are: the Colorado of Ecuador, the Tukano /Tucano/, Tariana, and other tribes of the /Plates XXII and XXIII appear here/ /379/ Caiary-Uaupés, the Tehuelche, and the modern Quichua /Quechua/. Among the Indians of the Caiary-Uaupés the tool lost all practical value and finally became a simple dance accessory (Koch-Grünberg, 2, Vol. I, Fig. 225, p. 350). /Fig. 51 appears here./

The bent ax has been found archeologically in Peru (Chuquitanta; Marquez Valley near Lima) and in Casabindo in La Puna de Jujuy (Argentine Republic). The specimens from Peru are designated as being hoes, which is possible. However, I shall call attention to the fact that the Chiriguano specimen from Caipipendí is exclusively a carpenter's instrument, which the Indians use for cutting the pieces of wood from which they make their furniture or weapons. /Fig. 52 appears here./

Figure 51 shows how modern axes of the simple neolithic ax type can be hafted exactly like their stone prototypes. The similarity of this ax to the stone ones used up to today by the Guayaki extends to the somewhat arched shape of the handle and to its slightly swollen upper end (La Hitte, Plate IV, 9).

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/380 cont./ spread among the Chiriguano recently for it has not yet spread throughout the territory they inhabit. The Chiriguano who live far removed from the half-breed or Indian populations of the Cordillera are not "coqueros," and only rarely does one meet among them some old man who accepts a quid of coca.

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Ivu is the last point toward the east and north where I could distribute my supply of coca to advantage. Nordenskiöld (10, pp. 85-91) sought to demonstrate that the custom of blackening the teeth went along cheek by jowl with that of chewing coca and derived from it. As a matter of fact, this habit has a very marked western distribution and follows the zone of coca cultivation.

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[824]

The Chiriguano mix each quid of coca with the ashes reaped from a tree (ulala) whose scientific name I do not know. These ashes (tanimbo), which corresponds to the llicta of the Quichua, are contained in a small leather bag.

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Coca is a luxury commodity which the Quichua Indians or half-breeds come to sell to the Chiriguano. To avoid all argument and all fraud on the part of unscrupulous sellers, the Chiriguano have recourse to balances of their own making. They fabricate them with /381/ two calabashes cut in half to serve as scales (Figs. 54 and 55). The balance with scales was in

[199]

use in pre-Hispanic times /Fig. 54 appears here/ in the ancient Inca Empire (see Nordenskiöld, 16) and so I believed at first that among the Chiriguano it represented a survival of /Fig. 55 appears here/ the Andean influence, whose importance we shall see further on. Among the Chiriguano, however, this object is designated by the Spanish name /382/ mbalanza, which seems to indicate that they borrowed it from the half-breeds. The latter and the Quichua use them in their commercial transactions, but especially for weighing the precious coca. Perhaps it was the same in prehistoric times. There is nothing to prove that only metals were weighed, as has been supposed with respect to these ancient scales.

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For weights the Chiriguano use old Bolivian silver coins and express measures according to the old Spanish system. By a tacit convention a coin worth two modern sous is the equivalent of one ounce.

/382 cont./

804 439 [177] The Chiriguano measure the cloth which Syrian peddlers come to offer them with varas, that is, a stick about 80 centimeters long, the length of the ancient Spanish vara. This instrument has been borrowed from the Bolivian half-breeds.

Chapter VI

121 ## Art among the Chiriguano and Chané Indians

To Professor Félix F. Outes.

The artistic sense of the Chiriguano is manifested in pottery decoration, pyrography, and wood carving.

We shall study these three activities one after the other.

Pottery Technique

● 114 323 The Chiriguano pottery technique has been studied briefly by Campana (p. 54), following Father Giannechini's notes, and by Outes (3, pp. 122-123), who adds some details communicated to him by the naturalist Holmberg to the ones he took from Campana's work. Nordenskiöld (1 and 10, pp. 142-147) completed on many points Campana's brief survey, so that I myself shall have few new things to note.

317 323 [439] The clay used by Chiriguano potters comes from beds well known to the Indians, where they go from time to time to lay in fresh supplies. It is enough to see old vessels full of earth around a hut to know that a woman lives there still practicing the ancestral industry. Where adequate clay is lacking, pottery is imported. Thus in the Tigüipa mission all the vessels in use were made in Machareti.

323 In order to be used the clay must be degreased with powder /383/ coming from potsherds. Fragments of old vessels are ground in a mortar until, after being put through a sieve, they give a fine powder which is kneaded for a rather

1: Métraux--156 E-5 (1929) 1930 SF:0 Chiriguano SF:0
Chané SF:8

/387 cont./

C 323 386 The name tarawirisi is also given by the Chiriguano to objects resembling loaves of bread kneaded by hand which are composed of a resinous material mixed with wax. According to the explanations given me by the Indians themselves, this

C 417 415

Fig. 86. Forked tree-trunk serving as a shelf for putting vessels on. (After a sketch by the author.)

C 323 386 substance is taken from a mimosa. After being sprinkled with boiling water, it is kneaded and dried in the sun. Its color is yellow or red, but after firing it becomes black.

I could not learn whether this black glaze was applied over a layer of black paint or spread directly on the walls of the vessel. In every case the designs made by this process are much less regular than the ones drawn with a brush.

C [194] E [1929] E-5 p. 144 323 386 My collections of pottery, which consist of nearly 300 pieces, do not contain any glazed specimen. Nordenskiöld (... p. 144) assures us that the Chiriguano and the Chané of the Parapití coat their yambui with a sort of gum called tarawiri, a word which, except for one syllable, is the same as the one designating the resinous substance we have just been considering.

/408 cont./

415 197 192 12. The anthropomorphic vessel of Figure 13 seems to have come from the hands of the ancient potters of the Isla de Tilcara who, several centuries ago, used to make analogous pieces, without a doubt servilely imitated by the Chané and the ancestors of the Chiriguano (see Debenedetti, 3, Figs. 139-141, p. 191). Boman (2, Vol. II, p. 786, Fig. 193) also publishes a bird-shaped vessel, perhaps of the pava del monte (Penelope obscura, Vieill.?), found not far from the present-day village of Humahuaca and which, in addition to its general appearance, has in common with our specimen

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Fig. 13. Ornithomorphic vessel. Chiriguano. Motifs: pink and green. Prov.: Tarairí. (1/3 nat. size.)

415 197 192 from Tarairí designs painted on the sides which represent the wings and tail.

415 The Chiriguano Indians of the Caipipendí valley and the Ivo mission still like to serve chicha in vessels to which they [illegible] shaped vessels have been discovered in the Quebrada de Humahuaca (Debenedetti, 6, p. 97, Fig. 14, and Otilio Bregante, Fig. 131, p. 147). Perhaps these are the prototypes of the present-day Chiriguano specimens. Why suppose that these receptacles had solely ritual usage, as Mr. Debenedetti thinks, when one sees the modern Chiriguano make an entirely similar use of them?

[See p. 190--Ana/1917]

[illegible]

[illegible]

by me in humble ceramic whose makers were certainly not [illegible], but poor devils who had the luck to have a mother or grandmother who was an expert potter. If the criterion of Mr. Dehenaudrit were admissible, the crude pottery and the fancy vessels which can be bought in every Chanté or Chiriquano village would be products of two different civilizations. In reality the fancy pottery is used on feast days for drinking chicha; and the other, more humble in appearance, is adapted to daily needs.

Fig. 86. Dish from Tiliviche and decorated with red colored triangles on a white background. (1/8 nat. size ±.)

Besides, the colored triangle is more frequent on the [illegible] Dehenaudrit writes on the subject. In addition to the examples cited, seven others must be added (Dehenaudrit, J., Fig. 36, p. 366; Fig. 38, p. 432; Fig. 40, p. 714; Fig. 44, p. 802; Fig. 165, p. 719; Fig. 166, pp. 719-720). A vessel from Alligator in the same Quebrada bears a triangle with volute on the inside rim of the neck (Dehenaudrit, J., Fig. 14, p. 719).

Is Mikwan--230 E-5 (1929) 1930 SF10 Chiriguano SF10
Araucanian Indians SR6

GSD /427 cont./

which preceded Inca culture. If one compares the present-day pottery of the Chiriguano with that of the Quicha /Quechua/ of Cuzco, certain analogies will appear, but they will be neither abundant nor conclusive enough to establish a direct filiation. Aryballoses are missing or rare, ornithomorphic dishes seldom found, etc.; on the contrary, we have seen how multiple and close the ties are between this pottery and that of the Chincha-Atacama period. Chiriguano pottery, in relation to that of Cuzco, is in a situation analogous to that of northwestern Argentina: on an Andean but original base, influences from Cuzco have been superposed. This Inca action on the Chicha is attested to even today by /428/ the presence among the Chiriguano of footed vessels of the purest Inca type and apodal ones of the same origin. Arising from the same influence, one may add certain decorative motifs, with which I have already dealt.

Arawak and Amazonian tradition is scarcely represented, except by footed bowls (*compoteras*), vessels with a ribbed belly, those with a body in the shape of a truncated cone and a subspherical belly, and perhaps by some motifs (T-shaped figures, Plate XXXVIII, 1).

The conclusion of this chapter will be: there exists today and for some years to come a civilization which, closely related to that of the Chicha, continues an art earlier than that of the Inca but influenced by them. May this fact make archeologists cautious!

Chapter VII

Calabashes

The second art in which the Chiriguano excel is pyrography and engraving on calabashes. When pottery-making was an essentially feminine activity, pyrography was the province of the men. Nordenskiöld (5, pp. 233-236) thinks, completely wrongly it seems to me, that pyrography is of Andean origin. He advances in support of this opinion the advantages that knowledge of metal offers to this art. Nevertheless, the populations of the

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/429 cont./

531 171 On almost all the calabashes in my collection pyrographed designs alternate with incised motifs. Perhaps it is the same with the calabashes of the Andean region. Judging from the excellent photographs which Boman (2, Vol. II, Plate LXXVI) gives us of them, and from /430/ the specimen from the Calchaqui valley which I am publishing here, this scholar erroneously considers them as having been entirely pyrographed. When a Chiriguano incises a design with a knife on a calabash, he is always careful to fill the engraved lines with ashes to make them stand out. At first sight this process may be confused with true pyrography.

• [114]

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Fig. 85. a and b. Engraved calabash. Only the rim has been lightly pyrographed. On one side (a) is seen a feline animal (jaguar or puma), on the other (b) a fox (?) and a bird. Prov.: Masaví (Igüembé Valley). (About 1/2 nat. size.)

531 A single glance at Plates LXI-LXXI allows one to realize that pyrography and engraving on calabashes do not obey such rigid stylistic rules as pottery. These calabashes differ very much, and there are scarcely any motifs that seem to be preferred to others. To what is this diversity due? I believe it artificial; and I am convinced that formerly this art followed precise norms, in a word, that in times past there was a true style of pyrography and engraving on wood. How would one explain otherwise that precisely the most beautiful pieces in my collection are at the same time the oldest and the most similar to the Andean prototypes (Plate LXI, 1 and 2; LXII, 1 and 2; LXIV, 2; LXVIII, 2 and 3, etc.)? Let us not forget that

1: Métraux--279 E-5 (1929) 1930 SF10 Chiriguano SF10

Fig. 96. Knitted wool cap (ankairu). Prov.: Nawirenda. This headdress is a unique piece and it may not be Chiriguaro. (1/3 nat. size.)

[114]

/444 cont./

285 (1, Fig. 134, p. 122) obtained from some Chorotí who were
[114] camping near Tatarenda. I share the opinion of this explorer, who considers this object as of Chiriguano origin.

In spite of its simple and archaic character, basketry in
[171] wicker work is rare in South America. According to Nordenskiöld (10, p. 171, and 11, p. 198), it is found among the Araucan, Yurakare, Atsawaka, Tambopata Guarayú (Chama), Yamiaka, and the Indians of Guiana, in particular those of the Roroima region.

/468 cont./

412 171 At La Paya, Ambrosetti (6, Fig. 254, p. 484) discovered combs cut out of a small wooden board and some composite combs. Instead of simply recording the coexistence of two different types of combs /Plate LXXXVII appears here/ /469/ in the same place, a very natural phenomenon by reason of the heterogeneous character of the culture of La Paya, Ambrosetti puts forth the strange hypothesis that these combs served for carding wool, without taking the trouble to inquire whether this instrument was known in pre-Columbian times.

303 322 462 412 The making of combs, like all wood carving, is an essentially masculine job.

412 174 The table on Plate LXXXVII indicates my idea of the morphological evolution of the different forms of combs which I have collected.

Chapter XII

Furniture

352 [114] Since the diverse cultural elements which constitute the furniture of the Chiriguano have been completely studied by Nordenskiöld (10, pp. 8-22), I shall limit myself to mentioning them here, insisting only on several details. /Fig. 124 appears here./ /See p. 338./

[342] Let us enter a Chiriguano hut. The door we open is a kind of screen of reeds or a cowhide hardened in the sun. Daylight penetrates the interior through this opening. The only important

[513] piece of furniture is a wooden cot (Fig. 125), a kind of bedstead generally occupied by two persons between whom one or two children come /470/ to slip in somehow or other. Nor do the Chiriguano hesitate to sleep on the ground on an oxhide, which they spread out in front of their house. On the upper Pilcomayo, in nearly all the huts one can /Fig. 125 appears here/ /See p. 339./ see one or two hammocks which serve either as seats during the day

[286] [177] or as cradles for small children. Their technique, that of the double thread (Doppelfadentechnik), continues an old Guarani

[Text Continues on P. 338]

/484/

However, these awls are too abundant in each village for their use to be only sacred. It is probable that the Chiriguano use them as a simple tool for solely secular purposes.

At Tilcara, Debenedetti (2, Fig. 176, p. 232) discovered specimens made of deerhorn identical with our Chiriguano examples.

8. I have in my collection seeds whose virtues are multiple: they are an excellent remedy for skin eruptions, ulcers, and toothaches.

9. For stomach-ache the Chiriguano recommend the absorption of particles of wood (mboipinda).

10. Certain seeds (of a graminaceous plant?) when crushed give a paste or powder with which they treat animals whose sores are attacked by worms.

11. When cows' hooves tend to work loose, they bathe them with fragments of limestone (itaiwi).

12. Fat extracted from a cow's foot is an effective ointment for cases of rheumatism.

13. The beak of the toucan is said to enjoy great medicinal properties. They grate it and drink in water the powder which comes from it (Campana, 111).

Stitches in the side and dysentery are treated with a piece of armadillo shell burned, ground, and dissolved in water, which the patient drinks.

In the Diccionario Chiriguano-Español y Español-Chiriguano etc. (passim) and Nino's book (pp. 288-290) is found many a very interesting piece of information on the pharmacopoeia of the Chiriguano. I shall summarize them in order to complete my own observations.

1. The oil which floats on kiwi, when it is done, is a good remedy for headaches.

2. Salt, ground and drunk mixed with the urine of a small child, quiets stomach pains.

3. Rheumatism is doctored by applying on the ailing part a branch of ajala (ñankawina) from which the thorns have been removed and which has been heated.

/488 cont./

759 The explorer Eric von Rosen tried to demonstrate that
114 some objects found in northwestern Argentina are clyster tubes or nozzles. Nordenskiöld is also of this opinion. As for me, I am all the more tempted to adopt this hypothesis because I could not otherwise explain the presence of this instrument
759 among the Chiriguano. No Tupi tribe, as a matter of fact,
171 with the exception of the Omagua on the upper Amazon,
174 seems to have resorted to enemas in case of illness; at least not one of the numerous travelers who gave their attention to these Indians mentions the operation among them. There is no doubt that the Chiriguano borrowed this curative method and the corresponding instrument from the nearby Andean peoples. We know that the Quichua /Quechua/ gave each other enemas, as is proved by the discovery of a leather syringe in a pre-Hispanic grave of the Ollachea Valley in eastern Peru (Nordenskiöld, 14, Fig. 74, p. 188). (To be continued.)

000 /The bibliography, pp. 488-493, is omitted in the translation; see the foreign text. The following "Table of Contents" appears at the end of this volume of the Revista, along with the tables of contents for the other articles in the volume. The lists of plates and figures which follow the table of contents in the translation were made up from the captions and are not part of the original text./

/598/ Studies on the Culture of the Chiriguano Indians

by Alfred Métraux

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2:Métraux E-5 (1929) 1948 SF10 Chiriguano SF10

typical *Inca* designs. At Caipipendi (pl. 41, *top, right*), near Charagua, he found a *Chiriguano* cemetery consisting of large, corrugated urns, identical to modern *Chiriguano* chicha jars, covered with smaller jars. Near the surface was found a vessel with incised decoration which has no resemblance to any modern *Chiriguano* ware. The same site yielded a small pot with thin incisions and two suspension holes.

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SOURCES

Short descriptions of the *Chiriguano* appear in the early literature. Garcilaso de la Vega's picture of *Chiriguano* culture is on the whole quite inaccurate, but for a few details. Díaz de Guzmán (1914), Barco Centenera (1836, 1912), and Lizárraga (1909) speak briefly of *Chiriguano* culture, but the earliest firsthand account of it is Father Choné's letter (1819 b). Tamajuncosa's report (1910) about the state of the missions at the end of the 18th century is also an interesting document. Weddel (1853), who visited the *Chiriguano* in the middle of the last century, published a few notes about their culture. The best sources are the reports and books written by the Franciscan missionaries, Cardús (1886), Corrado (1884), and especially Campana (1902). Nino's (1912) much-quoted book is based in great part on Campana's monograph.

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Nordenskiöld dedicates several chapters of his "Indianerleben" (1912) and of "Forschungen and Abenteuer" (1924 a) to the *Chiriguano* and *Chané*. His data are accurate though somewhat superficial. Great stress is placed on the economic life and the material culture, but social organization and religion receive only cursory attention. However, the collection of *Chané* and *Chiriguano* myths is fairly large and of great interest. Nordenskiöld made a comparative analysis of *Chiriguano* material culture in one of the volumes of his ethnographical series (Nordenskiöld, 1920). More minute details about *Chiriguano* artifacts may be found in Eric von Rosen's (1924) luxurious publication based on a collection he made among these Indians at the beginning of the century.

Several aspects of *Chiriguano* history and material culture were studied in some detail by the writer (Métraux, 1930 b), who also published new *Chiriguano* myths (1931 a) and two sociological essays (Métraux, 1931 b and 1935).

Several monographs deal with *Chiriguano* pottery, which is today one of the best in South America. (Outes, 1909; Nordenskiöld, 1920; Métraux, 1930 b; Paulotti, 1942.) Recently, Max Schmidt (1938) again published and described *Chiriguano* artifacts and techniques.

Knowledge of *Chiriguano* religious and social life is meager and is limited mainly to Campana's monograph (1902) and to observations made by Nordenskiöld (1912) and the present author (1930 b) at a time when aboriginal *Chiriguano* culture was already decadent. The Paraguayan-Bolivian war accelerated its breakdown and little of it now survives.

2:Métraux E-5 (1929) 1948 SF10 Chiriguano SF10
Chane SF8

The migrations, wars, and the religious conversion of the *Chiriguano* have been the subjects of many historical monographs. The most important of these are by Corrado (1884), Serrano y Sanz (1898), Domínguez (1918), Gandía (1929 a, and b), Métraux (1930 b), Coni (1925), Moreno (1929), and Finot (1939). The Jesuit missionary work among the *Chiriguano* has been described by Lozano (1941) and Muriel (1918).

CULTURE

SUBSISTENCE ACTIVITIES

As today *Chiriguano* and *Chané* share in the same culture, the following data may apply to both tribes.

Farming.—The *Chané*, conquered by the *Chiriguano*, were proficient farmers who, though practicing a tropical type of agriculture, were probably acquainted with many of the methods of cultivation of the Andean area. The *Chiriguano* adopted their traditions. The new habitat of the *Chiriguano* did not offer the same resources for hunting and fishing as had their homeland. Therefore, these Indians depend on farming to a larger extent than any other *Tupi-Guarani tribe*. The basis of their livelihood is maize, of which they have 11 varieties, all related to those of Paraguay. Then follow in order of importance: Pumpkins, beans (11 varieties), sweet potatoes, sweet manioc, peanuts, and some Barbary figs (*Opuntia* sp). Sweet potatoes were grown on a large scale by the *Chané* of the Parapeti River.

These Indians also raise cotton, tobacco, urucú, and, in the Parapeti region, reeds for arrow shafts (*Arundo donax*). Plants of the Old World adopted by the *Chiriguano* include melons, watermelons, oranges, sugarcane, and sorghum.

Chiriguano men clear the fields and surround them with a tall fence as a protection against the inroads of wild or domesticated animals, a task which is considered to be particularly strenuous. They also till the soil, but at harvest time they are assisted by the women and children. The latter, armed with slings, drive away the parakeets and other birds which prey on the crops. Nordenskiöld (1912, p. 183) observed that among the *Chané* of the Itiyuro region, large maize fields were tended by men while pumpkins and beans were raised by the women.

Collecting wild food.—When their crops fail, the *Chiriguano* subsist on the same species of pods and fruits as those collected by the Chaco Indians: Algarrobo, tuna, mistol, caraguatá, and other plant foods.

Hunting.—Hunting is a very secondary economic activity, at least in modern times. Peccaries, which are the main game animal, are hunted with specially trained dogs and killed with bows and arrows or with clubs. Rheas, which are abundant in the Chaco plains, are caught with bolas. Pigeons are captured with clap nets. Special arrows with two points are used for hunting yacu birds (*Penelope* sp.).

2:Métraux E-5 (1929) 1948 SF10 Chiriguano SF10 ●
Chane SF8

The shamans (ipaye) enjoyed considerable prestige. When invited by a village to assist its inhabitants in some predicament, they were received with marks of great respect and were lavishly entertained. They served the community as rain makers and as doctors. In the latter capacity, they treated patients or protected the whole village against epidemics. Their curing technique followed the usual South American pattern of blowing and sucking the sick person. They retired to small cabins to communicate with spirits. Blowing tobacco smoke played a large part in the shamanistic ritual. The medicine men were expected to discover the evil charms that threatened the individual or the community as a whole. Shamans were often put to death for their failure to bring rain or to dispel an epidemic. Old women were often called to cure diseases which required the administration of drugs.

During carnivals, which, under the Bolivian influence, have become a period of wild rejoicing, young men wearing masks (pl. 44) of soft wood amuse the spectators by their antics and tricks. As the best masks are those carved by the *Chané*, it is likely that the clown interludes are survivals of dances by masked persons representing nature spirits or ghosts, such as are performed by many *Arawak* tribes. The *Chané* and *Chiriguano* masked characters collect food and depart amid the tears of old people.

MYTHOLOGY AND FOLKLORE

Cosmogony.—The Sun is a man and the Moon is his wife. In the evening the Sun enters a river which he follows until he rises again. An eclipse of the Sun or of the Moon is caused by the attack of a "purple" or "yellow" jaguar. Everybody then makes as much noise as possible to frighten off the celestial feline.

The appearance of the Pleiades, which the *Chiriguano* call "a swarm of bees," announces the harvest season. Their yearly course serves also to reckon time. The *Chiriguano* identify Scorpio with a fenced field, in the center of which is the miraculous spade of Aguaye-tumpa. In the black skies near the Milky Way (the road of the rhea), they see a celestial ostrich (rhea), the head of which is the Southern Cross. The Magellanic Clouds are the ashes of a fire built by a couple who went to the sky. (See Lehmann-Nitsche, 1924.)

Folklore.—Most of the *Chiriguano* folklore recorded by Nordenskiöld (1912) was obtained from a *Chané* of the Parapetí River region. The collection of myths and tales made by Métraux (1930 b) in *Chiriguano* villages shows that both groups, in spite of their different origin, share substantially in the same folklore. Certain motifs in the *Chané* version, however, have not been recorded among their ancient *Chiriguano* masters, and may well be *Arawak* traditions which have survived among them. An example is the theme, which is well known in the Guianas, of the

/xii cont./

arms of the Delegation and the forts. which they know how to burn frequently: the Tapiete continually threaten the farthest outposts and all their personnel. because the cannon and bayonet are powerless to civilize and to implant in the iron breast and crude heart of the savage /xiii/ humanitarian ideas. philanthropical ideas. because the cannon destroys. it does not civilize.

I shall not concern myself with these tribes in the course of my pages: a book could be written about all of them. studying their origin. their customs. their relations with the other tribes and even with the whites. their relations with invisible or imaginary beings. their language and their deeds. but I renounce this arduous task and concentrate upon the Chiriguano race. which was conquered by the missionaries of Tarija long before South American Independence and later by the fellows of the Colegio de Potosí from the year 1870 through a region closed to trade and civilization.

The first thing I shall do in the course of these lines is to set down a description of the Chiriguano region. after which will follow: the origin of the tribe or race. language. statistics. physical and moral character. religion. political organization. the people. customs. imposition of the tembeta /lip plug/ on the males. fasting on the maidens. sicknesses. wars. songs. gatherings. and. finally. death and mourning. I shall try to make this little work pleasant and for that reason I shall allow myself to insert an occasional fable which was formerly held to be a fact and which even today is taken as such in certain regions.

Word to the Reader

This little work. which some will call not only useless but also a waste of effort is now born. but perhaps others who like to study races will find it useful for Ethnography. despite the fact that it is inadequate to give a perfect idea of the race among which I have lived since the year 1893.

Before beginning this third work I have tried to acquire some knowledge. I am not the first to write about these Indians: I have been preceded by D'Orbigny. Pelleschi. /etc/ Montegazza.

/xiv cont./

•114 the Franciscans Conrado, Cardús, Martarelli, Giannecchini, and Señor del Campano, etc. But in Bolivia no complete work is known. Notes or pages by authors definitely worthy of every respect and very competent hardly exist, nor have explorers witnessed all that they have written about, from which have come errors which would certainly have been avoided if the reports had not been made so hastily.

121 [124] With all possible calm, patience, and unlimited time, I have set out to talk with the oldest and most knowledgeable Indians, who have explained some points to me, corrected certain others, and made me add still more; but I have already said that with my writing I do not pretend even to equal the luster of those who have preceded me. I shall only give more extension to the ideas which have been set forth by others, ideas which in the majority have been confirmed by the Indians to whom I have addressed myself.

Finally, I must state that since the Chiriguano are in contact with the mission Indians, and these, both old and new, exist in considerable number, I shall add by way of conclusion, after having finished what I have proposed to do, a chapter concerning the heathen Chiriguanos, the neophytes, or new Christians, and the method that the Missionaries use to reduce them religiously and civilly, and the effort required to maintain them in the Catholic faith.

121 128 Everyone will understand that, in order to avoid confusion, this small work will be divided into chapters, and the chapters into sections, for greater clarity and so as not to tire the reader. Certain terms that I must print here by necessity will be written in the Chiriguano language with their corresponding explanation, so that each one may understand the impact of the language. I could also formulate some general propositions with the corresponding Spanish, but the nature of this somewhat voluminous book does not permit it, nor is it necessary, because /xv/ there are various small handbooks which have been printed in this Republic of Bolivia.

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121 Lovers of Ethnography are asked to overlook as much as they can the faults that they will find; rather I pray that they will only note the facts which I set down with all candor and exuberance. With the remarks that precede I am going to begin.

San Buenaventura de Ivo, May 20, 1911.

Father Bernardino de Nino, Missionary, O. F. M.

/Page xvi is omitted in the translation./

/xvii/ Foreword

•114 Je prends mon bien partout
où je le trouve.

The Reverend Father de Nino, Franciscan Missionary of the Colegio de Propaganda Fide of Potosí, has honored me by charging me with the presentation to the public of the book which today sees the light, the preparation of which we have already announced in several numbers of the Boletín of the Repartición Nacional under our administration.

A very special reason compelled us to accept such a pleasant task: it provides for us, and for the scientific interest of the country, valuable collaborative material which is brought us by the learned Missionary whose intimate knowledge of the Chiriguano Indians, among whom he has lived as a catechist for many years, is indisputable.

There likewise weighed heavily upon our mind another powerful reason for welcoming the Etnografía Chiriguana with deserved applause: we had in mind the fact that in 1914, by an arrangement arrived at in London at the close of the sessions of the XVIII International Congress of Americanists it was decided that the meeting of the XIX was to be in Washington and this City of La Paz, as was done with the XVII, which held its sessions in commemoration of the Argentinian Centennial of 1810 in Buenos Aires, finishing in Mexico City.

We had to prepare ourselves for the session which was to be /xviii/ held in Bolivia, and this suggested to us the idea that the worthy work of the Reverend Father de Nino might be dedicated

/xviii cont./

●114 in the nature of a homage, which its author has done, to the XIX International Congress of Americanists.

It is generally believed that knowledge of the flora, fauna, geology, and export products are quite enough to carry out the work of colonization. Technicians and engineers can be sent in to go over a region in every respect and thus sketch an exact picture of its sources of wealth; meanwhile the human element, that essential element, will just as many times have been overlooked.

The opinion that we propound will be the same one that will be formed by the Americanist reader who reads with the careful study it deserves the missionary's important book with which we are concerned. Undoubtedly the catechist's living there, with daily observation of the neophytes of his reduction, permitted penetrating more intimately into the nature or soul of the beings in his charge. Anyone who reads the very numerous details and facts observed and set down in the present book, we do not doubt, will say that we are right. Can an exploring naturalist, a geographer, observe all that the Reverend Father de Nino relates to us? We believe that the wise perspicacity of a D'Orbigny could not very well see into a face hidden from him.

So it was when the same eminent explorer whose name we have just cited, in his studies of Moxos and Chiquitos, always had recourse to the printed and manuscript sources that the Fathers of the Society of Jesus had left us until their banishment in 1767.

What has most interested us in dealing with the modern Americanist science is the subject dealt with by the author: Chiriguano Ethnography, which is to say, the study of the primary material with regard to their language, practices, customs, traditions, beliefs, etc.

Very serious propositions have been adduced on questions which, among uncivilized races, are frequently hidden, /sic/ are an arcanum. Mr. Tarde has said quite correctly: "That which is unseen among primitive people, as among ourselves, is often more essential to take into consideration than what is seen. Thus, what is normally not seen among them, because

/six cont./

●114 it is an impenetrable secret, is what is related to their internal relations, what is going on in the depths of their hearts." Thus, in support of our judgment of the book by the Reverend Father Bernardino de Nino, we have the opinion of the Reverend Father Proberger, who says that "all the missionaries of the Congregation of Cardinal Lavigerie, who preach the Gospel in the region of the Great African Lakes, unanimously state that only after a stay of many years in the midst of those groups of Negroes is it possible to penetrate the mentality and, above all, the psychology of those uncivilized tribes. It seems, thus, that the expansion of civilization to new countries is not possible without the prior study of such peoples, that is, without ethnography."

This science dates from yesterday, being, in its form and in its field of concentration, legitimately called an American science, whose centers of study are the societies such as the "Smithsonian Institution," and others of the American Union. Our Hemisphere is a fertile field for investigation, in which remain remnants of primitive peoples, like the Chiriguano branch with which Father de Nino deals.

To the intelligent contributions which we have previously received from other illustrious Franciscans, the Reverend Fathers Rafael Sanz, Nicolás Armentia, and Fernando de M. Sanjinés, whose works on history, geography, explorations of our rivers, linguistic ethnography, etc., we have published, there is added today the valuable work which we are presenting to the public and which will certainly be appreciated to a high degree by the members of the Congress of 1910.

Now all that is left for us to do, as we have done for the Missionaries Sanz and Armentia, is to set down, although briefly, /so/ some biographical information about the Reverend Father Bernardino de Nino.

This wise observer of everything concerning the Indians of the reductions which have been in his charge was born August 20, 1868, in Abrutos Aquilanos. He took his elementary education in his native country, Pólvola Peligna. From there he went on to pursue advanced studies and other

/ex cen./

●114 subjects in the Episcopal Seminary of Sucre, where he received the four minor orders initiating him for the priesthood. He entered the Franciscan Order, putting on the habit of a novice in 1886. In 1891 he was ordained a priest and then embarked for our country.

It was in 1893 that he was assigned to the reductions of Chiriguano Indians.

In 1901 he was elected Prefect of Missions, and when the period of six years had elapsed, during which he opened the Missions of the Pampitti Grande, he was elected Vice-Prefect in the year 1907.

The fruit of what he had observed in his career as a catechist began to be known in 1905, with the publication of Nuevo Chiriguano /Chiriguani Infant/, to be used in the teaching in the schools of Neuquen.

Next, in 1908, he undertook a greater task, writing the continuation of the "Historia de las Misiones de Perez."

From 1909 to 1911 he wrote the Ethnografia Chiriguana, which is now being published.

In 1911 he made an inspection of the Missions of Tarija, during which he wrote "Rasgos historicos de las Misiones de Perez" /Historical Features of the Perez Missions/, by order of the Most Reverend Father Commissioner and Delegate General, Father Wolfgang Priewasser, in order that this document might be published in the Archivo Franciscano, which is in the process of being published.

In 1911 he was elected Delegate of the Commissioner in Bolivia for Missions, Convents, and Schools, a post which he held for nine months.

At present, since May, 1915, we have resumed /you/ on his assistance, entrusting him with editing "Guia del Clero," which he has studied for such a long time and which is unfamiliar to our general public and deserves to be known.

The aforementioned "Guide," presented by us to the Minister of War and Colonization, will be published very shortly, in accord with the authorization which we have requested.

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• 114 This will not be the last thing which we may receive as a contribution from the Missionary Fathers, inasmuch as we expect another addition which we have requested of them: the arts and vocabularies of the native languages of Bolivia which are still spoken by the tribes reduced by the Colegios de Propaganda Fide. Such matters are very fundamental and of primary importance to Americanist investigation, and already, with the support of the distinguished Director of the Museum of La Plata, we have made known the languages of the Yanaigua, Lecos, Tacanas, and Cavineño, more of the same sort being needed.

We shall leave it to the public to make a judgment on the work which we are presenting to it, not doubting that there is much to learn in it if we wish to know about the life and manner of being of the Indians who dwells in the remote regions of the Republic, on our frontiers with the neighboring States.

La Paz, December 1, 1912.

Manuel Vicente Ballivián /Illustrations appear here./

824 /16 cont./
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[14] I am going to make a brief list of some trees and plants which I know, without pretending to be a botanist, a subject I have not studied. I shall only say that I have learned it through experience and careful reading: when describing certain plants, I shall also make note of the use made of the bark, root, leaves, and branches of some.

ACACIA BALSAMICA. -- This is the quina-quina, under which name it is known here in Chiriguano country, a tall, straight tree, whose wood is ideal for building because the wood borer does not damage it: it is much used here in the construction of upper roofs, especially for the braches or trunks on which the roof frame is to rest. It is plentiful in Cordillera Province and even in Acero Province.

/17/ ACACIA SAPONARIA. -- This tree is large and its
[342] wood light, perhaps even lighter than cedar, but it is of less
[492] value: it is whitish and much used for making doors and windows, but the main use to which said wood is put is in saddleries to
[296] make pads for saddles. The seeds are similar to monkey ears
[515] and are good for washing clothes and to keep the skin of the face free of blemishes: here it is known by the name "timboy."

ACACIA AMARILLA /A. monliformi/. -- It is a medium-sized tree of rather lightweight hardwood, for which reason drawers or wash basins and yokes for oxen are made with it.
[372] It is no good for making fire, because it smells when it burns from which it gets the Chiriguano name "Totano," fire that smells: the wood is yellow.

ACACIA ASTRINGENTE. -- There are many groves of
[342] trees of this class here and there: it is the most abundant tree,
[281] the wood is good for small joints because the wood borer does not eat it: the bark contains much tannin, and it is the wood most used for tanning hides by both Indians and whites: the latter call it urbil and the former "Curupau."

2495 ACHIOTE. BIXA ORELLANA. -- This is cultivated in
227 fields and gardens, grows to a height of two and a half meters.
2204 Its leaves are dark green: it produces abundant fruit in a sort of pod covered with bristles and filled inside with fiery red seeds which are what makes the little tree highly valued. They
[302] serve as food coloring, and the Chiriguano paint their faces
[3052]
[439]

/44 cont./

*136 *825 "Cavadifung" and which others assert to be the scorpion; it is certain that this small creature, which gets into dwellings, does not go after man, but if it is disturbed and cannot get away, it bites.

The sight of alacranes /a kind of scorpion/, scorpions, and centipedes, which are called "Apuna" in Chiriguano, causes horror; they are not abundant, but they are found in every section. Their bite does not seem to be fatal, but one which stung me in the armpit through my woolen underwear did not let me sleep for a whole night, in spite of the ammonia which I took and put on the barely perceptible wound.

*136 Vinchucas /a nocturnal bug like the bedbug/, cucarachas, and a moth which eats paper are loathsome, especially the first two, which are numerous in inhabited places, sick, and dirty all the clothes and the whitewashed walls of buildings. The way to kill them is to destroy the proboscis or long beak, and then they cannot live. They are quite running. In the dark they will first approach a person who is in bed, give him a prick, and then retire to see if he moves or is awake. If the person gives no sign of life, they approach and suck the blood until they are satisfied. Nevertheless, the small ones are the most bothersome and can cause fever or sickness. They multiply naturally, depositing their eggs anywhere, and the young hatch by themselves. At first the eggs are white, and when the young are about to come out, they become red. Cucarachas abound in certain living quarters where they find food. They even eat the eyebrows and eyelashes of people who are asleep; they lay their eggs in the walls. If these are whitewashed, they pull off the whiting and cover their little nests with it. /All/ out of which can come up to 30 little ones, which ones start to run. The moth only bothers books and papers and is a nuisance for people who have them. Its color is silvery, and I do not know the principle of its multiplication. The vinchucas are black, the cucarachas the color of coffee, and none of the three is poisonous. In Chiriguano the vinchuca is called "Tinthuru," or "long one."

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know explorers and travelers, after having happily concluded their investigative labors, have set down in their reports that the Chiriguano Indians have changed greatly in physique since the whites or Creoles entered their territory, but nothing could be less exact than this. Clandestine unions between Christian men and Chiriguano women have been quite rare, and even rarer are legitimate unions through Catholic marriage, from which generally comes propagation and change in races (7).

> 7. In 20 years of missionary life I have blessed but four marriages between Christian white men and Chiriguano neophytes.

If Señor del Campana states that for a period of 40 years the Chiriguano have maintained themselves without change, on the basis of photographs taken in the year 1880, which were placed at his disposal by Professor Hassenpflug, and those which the missionaries of Potrerí and Tarija sent in 1890 to the Turin Exposition, among /111/ which was a skull collected by the author of this work in the fields of Camiguasi and sent by Padre Guasnuchiri to the Florence museum, what can be said by some missionaries who have grown old and who are growing old among these Indians and who know the race in old men and in young boys, in old women and in damsels, before and after the white Christians were introduced to number?

In my judgment the said change does not exist, because an occasional isolated case, an occasional family, where the mixture of the two races has taken place, cannot be adduced as proof that the physique of the race has varied greatly. Travelers and explorers pass through a region rapidly; they can devote little time to the study of a race, and consequently their written reports, worthy of all respect, are somewhat exaggerated, as were those of the Spaniards

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Love for the Home

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When someone has been away from his town for a long time and returns, he is received with much love. He enters his house without saying a word, and if he arrives at night, to the question of "Who is it?" he merely answers "Chero," "It's me," and then those in the house begin to cry or give shrieks of joy which may last for five minutes, and soon they give him something to eat and the
• [147] questions and answers begin. I witnessed this without being seen one night in Parapiti at the San Antonio Mission.

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It is not rare that once in a while a smaller or greater proportion of Indians temporarily leave their town, either because of scarcity or in order to avoid the anger or ill will of the cacique. They then go away with considerable unhappiness, and they go into exile like Hagar /132/ with her son Ishmael when they were ordered out by the patriarch Abraham. They cry as they leave, they cry along the way, they cry upon arriving in the land that receives them, where, in spite of the good reception which has been prepared for them by other people, they do not find peace, and they always sigh for their home.

When they decide that in their former dwelling place things may have changed, or that the cacique who is responsible for their misfortune and exile may have disappeared from among the living, they return (1). In Yvu, where

1. The Indian Cayuguari, because of a crime committed in Macharetí, fled with a group of Indian friends and relatives, settled quite far away to the northeast of Carandaiti, and, as the cacique whom he offended is still alive and as furthermore Cayuguari began a life of cattle rustling, he never returned to his town.

the war of Curuyuqui (1892) occured when the San Buenaventura Mission was founded, all those Indians who had taken part in the uprising were wandering about in

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796 What I am going to set down here will cast some light on this subject and will enlighten the intelligence of the studious man for its investigation.

124 796 From conversations with the true Chiriguanos it is impossible to form any idea of the supreme being that they accept. I say true Chiriguanos, by which I mean those who have had almost no contact with missionaries or whites. Today it is difficult to find one of these. Yet despite this, if one should ask the old people who live far from the missions, "Who made all that we see?" they answer, "Quia ndipó?" Who can it be? "Who created us?" They answer: "Ti! Ndicuaá á?" What do you mean? Do you not know? And they give a purely material explanation, as happened on an exploration and trip that I made several years ago in the company of other missionaries south of the canton or town of Huacaya, where I talked with an old cacique who had taken part in the war of 1875 against Igüembe and who, after the pacification, preferred to live outside the mission and planned to die there, because he is convinced that Indians who live in missions die earlier, just as, according to him, all of his companions from Boicovo have already died, which is not true, because they still are alive there, as old as he is (1).

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1. The Indians have had and will continue to have the false and erroneous idea that baptism makes those who receive it die, because it is administered to men and women who are in immediate danger of death, and hence those who are old do not wish to be baptized when they are enjoying good health.

192 In the Chiriguano language we find the word Tunpa, which means "superior being" or "marvelous being." When for the first time they saw a large clock with its "tick, tock" and the pendulum making the hands move and giving energy to the hammer to strike the hours with its little bell or wire string, when they saw for the first time the photographic camera which reproduced the image of one or more of them, the clock and camera were Tunpa for the Chiriguano. They applied this word to both things.

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793 purpose, thought up another supreme effort, making fall from the heavens torrential rains, Iporu (?), in order to destroy the Chiriguano

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2. I means water, and its pronunciation is gutteral and nasal; poru means to lend oneself /prestarse/; thus, Iporu is explained literallyt he lent himself to water /se prestó agua/.

race completely inundating all men in the waters.

He would have succeeded in destroying all the Chiriguano, but they in extremity and perhaps by advice from the true God, Tunpaete, found a large gourd, Choguao, put in it two small human beings, children of the same mother, male and female, cuimbae, cuña, and they let the little vessel float on the surface of the water.

The rain continued to fall in all its force. The waters rose over the surface of the land, rising to great heights, and drowned all the Chiriguano except the children in the Choguao, or large gourd, who were saved from the catastrophe. Later it ceased raining, and the waters dried up again, leaving a thoroughly filthy mud. The children came out of their receptacle, without which they would have died of cold and hunger.

It can be easily understood that the fish and their kind did not perish in the waters of the Iporu, and thus for a long time these had to be the food of the two human beings, but how to cook them, when even fire had disappeared? Before this happened, there was another compassionate being who did not permit the total loss of this good element. This being or second cause was the Cururu, toad (3).

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3. The word Cururu should not be confused with Curu, which means mange. From Curu comes Curuyuqui, salt which cures mange. The pacifiers of the war of 1892 wrote incorrectly Cururuyuqui.

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and does not know how to do it goes to the sorceresses, pays them, and obtains it.

This seems to be a fable which in itself does not merit any importance, as indeed it is not given any by Father Giannecchini, who does not deny it in his writings, as Señor del Campano states. Poison exists among the Chiriguano. They do not extract it from chamico, which is a species of datura, nor do they extract it from other plants or herbs. The sorcerers reveal nothing: the young people do not know about it, and the few old people who are alive only tell what has been said above. Be that as it may, this is a belief of the tribe, and as such I have told it.

Lunar Eclipse

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One night while waiting for a lunar eclipse, I found myself in conversation with the cacique Anduari of the mission of San Buenaventura de Ivu, and I was reminded of something which I remembered regarding this phenomenon which was about to occur on the moon. Chiriguaio towns are true hells during an eclipse, because of the shouts, cries, whistles, and every warlike instrument which they use to make noise. When I came to the missions, /154/ the war of Curuyuqui had just happened, and when I heard so much and such an extraordinary hubbub on the night of an eclipse, I believed that it was a new uprising, as was also believed by the inhabitants of Cuevo, who came out armed to find out the cause of so much noise (1).

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1. The Italian professor Mantegazza states that the Chiriguano, in order to whistle loudly, take out the tembeta or button which they have in their lower lip. This is incorrect and denied by all; what the renowned anthropologist refers to must be a special case, since they cannot even drink without the button.

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As the Chiriguano had predicted, the jaguar very soon began to put into practice in the heights of the moon its natural inclination to kill and eat defenseless beings. Its peaceful, compassionate, and defenseless liberator lent itself marvelously to its voracity, and the tiger attacked it, but the moon came crying to the inhabitants of the earth, to the Chiriguano, calling them to its defense, if they did not wish to remain eternally in the dark (1).

1. If the eclipse is total, they believe that the jaguar has swallowed the moon whole; if it is partial, this is because it did not have time to swallow it.

The Indians, despite the bad deed that the moon had done against them, and more for their convenience than out of compassion, came out of their towns en masse, some with drums others with whistles, and others with the horns of cows and bulls; they frightened off the Yagua rapih, yellow jaguar, who out of fear of the Chiriguano, remembering what had happened to it, desisted from its intention, and since then, every time a lunar eclipse occurs, they do the same thing. The fabulous belief passes from the old to the young, from grandfathers to grandsons.

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On a bright moonlit night the missionary was sleeping peacefully in the Ivo mission, and the moon was obscured by a total eclipse. This was during the month of June in 1908. The missionary did not know the language, and I was absent. The children, who spoke a little Spanish, in their desire for the missionary to see the phenomenon of the eclipse, awakened him with a great uproar, shouting to him Jaguar is eating moon (2).

[191]

2. They say nothing of the eclipse, total or partial, of the sun, doubtless because it occurs very rarely; the old people have but an obscure idea of this phenomenon.

/150 cont./

or five Chiriguano tribes at that distance. The only large town that I found on my travels is Mombirai, which is joined to Chiuri guasu on the left bank of the Parapiti. I know Caiguarenda where I often slept; the Indians are many, but they live in different places, forming groups of 15 or 20 families (1).

2. The beautiful Santa Ana Mission was formed by bringing together into a single town more than ten small tribes which voluntarily, with their caciques, moved to the place shown them by the missionary. In Tumichá there are three small tribes a very short distance apart.

Attributes of the Cacique

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Just as in a family there is the authority of the father who governs it, or, should he be absent, that of the mother, who looks after and cares for the proper /151/ rearing of the children so that they may grow properly and not commit disorders or start fights with one another, thus also in every town or tribe there is a Tubicha, great one, whom I shall call cacique, so that my readers may understand that the Great One is a person of authority and prestige. The attributes of the cacique are multiple: when an epidemic has broken out or is about to break out in the tribe, it is he who seeks out the governor to dispel it. If the tribe is suffering a drought, he goes to the master of the rain, who is another sorcerer (1).

1. In each tribe there is but one cacique; many caciques are under a regional cacique who can dismiss the lower ones.

At the time of planting, while the people of the tribe sleep or rest in their homes, he goes out to the small plaza or in front of his house and, walking about, holds forth to the town, encouraging it to sow sufficient maize so that when it is ripe there

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301 302 [199] buy in the store, so active since the founding of the missions. The Chiriguano with his vigorous head of hair and his red Yapicuana /188/ walks very proudly and shows off both things at feasts in the presence of his companions (?).

[197] [114] [121]

1. An interested party once said that the mission in Yumbía had no purpose because the Indians were civilized. I am sure that this is not true, because the explorer who wants to learn the old customs of the Indians can study them better there than anyone else today. There they wear long hair, the tembeta /lip plug/, and balaca, or band, from childhood.

291 294 285 To cover the head they do not all wear a hat. The latter is woven by them themselves with palm leaves. Carandaí; they bring them from the places where they are abundant. Carandaiti, pull out the whitest shoots /cogollos/, take them to their houses, then string them one by one on a long cord, which they make of the same palm, tying them to each other. They hang them there and the action of the air whitens them much more. Then they divide each leaf of three or four shoots into leaflets no larger than 2 1/2 centimeters and begin to weave at the crown, where they form a cross with these leaflets, which they then keep weaving, and, as one ends, they add another, and when the work reaches the edge or brim, they trick the ends in so that the hat will not come undone, pull strongly, cut off the ends, and a round hat has been finished.

Others form long strands one centimeter wide and sew them to one another with cotton thread, and these hats are imperfect 292 554 cones lined with black or red cloth. They are used by older Indians, those of importance, caciques and sorcerers (?).

291 302 304 178 2. The Quichua /Quechua/ always with his cap, the Chiriguano is abandoning the custom of long hair, the lip is pierced for the tembeta in few places now, and the straw hat is being

/196 cont./

301 Indian youths who cannot sport a bead necklace make them out of shell, Yetita, which is abundant throughout the region.

[321] /197/ The pieces are flat and round like a small button. They make a hole in the middle and string them one by one, making a knot in the string in order to separate them. Since the shells are white, a necklace on a Chiriguano's black neck is like a fly in milk (1).

[562] 1. The shell necklace is worn solely by men. I checked carefully and saw that they alone wear it. I have several of them that I found in a grave which was uncovered by the rain.

301 562 For men there is another necklace of beads, Ndamichai a string of these with a large one in the middle, Ndamicha ichi, mother of the beads, is valuable. The ndamicha even comes mounted in the hole of the tembeta, which then is valuable and is called Ndamicha-rembeta, tembeta with bead.

• 114 301 562 It seems that the explorer and expeditionist Toure is not completely correct when he says that these necklaces are made of coralline, malachite, etc. The Indians do not tell where they come from. Perhaps with careful analysis it could be learned what type of material they contain and which animal produces them naturally, such as the coralline. What is beyond doubt is that today's explorers do not give them the value that they would have if they were true pearls. The former value of beads among the Indians themselves was, as I have said, conventional. The same gentleman is not entirely correct when he states that the Chiriguano women wore shell necklaces. Perhaps they were used by the Tapii women, where he stayed for a long time in his efforts to see Olympus from Ingre.

301 562 Women's necklaces are abundant and are of different forms and colors. Some are round and black, Mboinu, companion of beads, others red and curly, Mboichanchi, curly beads, and others long and black, Sebadilla. There is also no lack of women who in addition to the above-mentioned ornaments place around their necks a string of silver coins, all of the same size.

4: Nino--291 M-3 (1880-1911) 1912 SP10 Chiriguano SP10

753 had asked for her as his wife, a proposal which had not been
954 accepted: but it must be noted that the Indians attribute
every death to sorcery.

765 The loss of this child was greatly mourned by relatives
[964] and others, and her parents, who loved her very much, burned
all of the clothes and things that she had, in addition to
having buried with her the best and abundant clothing which
her father had just brought her from the Argentine Republic.
The girl had three donkeys which had been given to her by
her father. They sold them in order not to see them any more,
in order not to be reminded of their late daughter each mo-
ment and immediately weep.

855 I have related this event so that my readers may know
965 that the Chiriguano love their children whether male or
female, so that they may see the grief they feel, and so that
they may know that in case of hydrophobia the medicine
which I administered to the girls Ana and Delina is a good remedy:
after the last fever they are now completely well (1).

• 114

1. If some new missionary or other readers
may not know of it, let them now know that
ammonia drunk as drops in water and placed
on snake bites and bites of other poisonous
animals or insects is very efficacious. In
ignorance of having been bitten by a spider,
I suffered the consequences for seven months
and got well as soon as I applied ammonia to
it. For another bite I used ink very efficaciously:
it is enough to paint the bitten part with it.

Deformed Children

845 It is not easy to ascertain why the Chiriguano kill their
849 children who are born deformed. Some writers have stated
732 that they do it so that all will be valiant warriors, but this
reason is not satisfactory because deformed women are not
found either, and certainly women are not good for war.

/[illegible]/

304 [illegible] same operation, because he never takes one alone. There must always be two, four, six, eight, or ten (?).

[801] 2. In a town of 30 or 40 families there was usually never any lack of boys of the same age. The number of the boys to be pierced should never be an odd number: superstition and nothing else.

304 881 [985] [114] The boys appear for the operation on the designated day, led by their fathers and mothers. Meanwhile, other native persons gather there, men, women, boys, and girls, to see and /[illegible]/ attend this solemn act, which, as I have learned, is not preceded by any day of fasting; thus what certain writers have said in this regard is wrong, as is the rest that refers to the person who does the operation, for whom the qualification of being an Ipayo, sorcerer, is not required for the imposition of the tembeta.

Before beginning the operation the surgeon authoritatively addresses those who are to be men, telling them to be valiant and strong in their pain, without letting their moans be heard or crying, because these are not the signs of a brave man, of a man who wears the tembeta, which is the sign of virility, of [95] a man who must be able to face the dangers of war. Finally, he orders them that it is time to give up the ĵ, ĝ in their answers, and in its place he orders them to replace it with ĵa.

When this brief and eloquent discourse is over, the first boy stretches out on the ground or on a cot, and in order to give himself courage he says in a vibrant voice, Che ravi tayicatuca, may I be the first to be pierced, words which are greeted by the gathering with jubilation and at the same time with wonder, since they already know the pain that he is going to suffer (1).

[195] [193] 1. The Chiriguano Indian also uses the imperative to order himself, that is to say, his verbs still have the first person of the imperative mood, which indicates considerable arrogance.

/320 cont./

Then the one doing the operation looks among his implements for the string with which he takes the exact measurements so that the hole will be in the middle and above the [illegible]. Then he prepares the Cuanguano, which literally means piece of the cured skin of pygmy deer. Certain writers have believed that the guanguano is a pygmy-deer horn on the basis of the name guan-, with which the name of the article begins, but it is a mistake. The guanguano is a round piece of iron of the size of a cerrajera needle, which they call Tangô in Chinese /Quechua/ (1).

1. If it were a slender deer-horn, it would be liable to break, and if it were slightly sharpened the hole would be very large and it would be difficult to hold the first teeth, which should be small. There would be many other problems, which are avoided with the slender and strong iron.

As I have said, he takes the dimensions measurements with a string; he puts it [illegible] and upon seeing this the mother is frightened and weeps in silence, and the other people shriek back. Finally, utilizing the services of another practitioner, he has him press very strongly with the index fingers of both hands at the edges of the temples, at the point where the ears are attached, and when he is sure /321/ that the boy surely feels the pain that the assistant's fingers cause in his ears he quickly and deftly inserts the well-sharpened iron, and the hole is made with considerable skill, the Guanguano passing up to the tip of the nose.

He at once puts a hollow little tube of tin on the iron and lowers it little by little in order to pull it out of the pierced lip, whose inroad there remains in place the little tube, which sticks out a little on both sides of the lip. In Chonguano this tube is called Tembetandi, or white wooden

M-3 (1883-1911) :812 SF10 Chiriguano SF10

/[illegible]/

If the missionary goes into the forest and goes among the barbarians in the name of Christ, he teaches them to love him and to know him, and, like his divine Master, he is compassionate toward the afflicted and toward those who are suffering. Like him, he does not close his ear to one who asks for charity, but divides what he has with the hungry, dresses the naked, and, when he has nothing else, at least has soothing words to console the sad. This is the life of the missionary, which, by great effort and much perspiration, is gradually transforming the places and the hearts of the inhabitants of this region, into which civilization has come through him. Oh, how the Supreme Government and the inhabitants of Bolivia should appreciate him, both of them, because of his work of moral and political civilization! But even should men not recognize this, his eternal reward will be greater (2). /Illustration appears here./

LIN
[illegible]

2. The work of the missionaries is greatly appreciated in Europe. Some governments exempt them from military service and give them free passage on ships and railways. This is even done by the ex-Chief of Catholicism. The missionary of San Buenaventura de Ivu /the author/ has been exempted from military service by the Italian Government.

4: Nino--422 M-2 (1893-1911) 1912 SF10 Chiriguano SF16
Chane SF8
TM 12

C 121 122 /313 cont./

If the Supreme Government and the friends who have helped me in this first edition continue to provide me with their considerable support, I plan to return to the region, to make better studies, to get certain data about the other tribes, to get views and panoramas with photographic cameras, and then bring out a second, more polished edition.

C 131 [114]

Since, however, through my nomination as a Corresponding Member of the Geographical Society of this city of La Paz, I am making studies appropriate to this science, I shall set down in these pages the approximate geographical degree occupied by the known tribes which populate the extensive zone of the Bolivian Chaco.

The Chiriguano Indians are numerous from 18° 50' to 22° latitude south of the Paris meridian and from 63° to 66° 50' west longitude. However, small groups can be found at 17° 20' latitude and other groups at 22° 25' toward the south of present-day Yacuiba (2).

2. I follow the Paris meridian in placing the tribes because in the body of the work I have used the same to indicate the location of the Cayuguari Indians.

C 121 /314/ The reader who has accompanied me as far as these lines will have quite a clear idea of the Chiriguano Indians, their language, customs, and beliefs, and consequently I have nothing to add with regard to them, because this would be a repetition of what I have said. I shall say something about the others, so that Bolivians and foreigners may know the Indians with whom they are to deal.

Tapúi or Isoseños

Ce 161 131 The Tapúi Indians are as many as 2,000 between children and adults; they occupy both banks of the Parapiti River at 19° and 19° 50' latitude and 62° 20' to 65° longitude from the Paris meridian.

[illegible] 9-4-4 (1909-1910, 1913, 1920
[illegible] Chiriguano [illegible]
Chaco [illegible]

Introduction.

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In Part I of this work I sought by a new method to analyse the material culture of two Indian tribes the Chorotí and Ashluslay. In the introduction to the aforesaid work I explained the method employed. In Part 2 I have sought by the same method to make an ethno-geographical analysis of the civilization of two other Indian tribes. These are the Chiriguano and Chané, who dwell in the southernmost part of Bolivia and northernmost Argentina. The Chiriguano are Guaraní Indians, while the Chané are Guaraicised Arawaks[1]). They thus belong to two of the most important tribal groups in all America. Their civilization is already well known, thanks to the missionaries who have worked and still work among them. Their works are referred to in the bibliography. The most important are those by Cozzano and Pozo. Dez. Campana wrote a monograph on the Chiriguano based on information supplied by missionaries. We also find mention of the Chiriguano in many older works. The information they give on of their manners and customs is unfortunately scanty. It is, indeed, only in Lozzano, Charlevoix, Viedma, Lozano and one or two of the Lettres édifiantes that we find any useful matter.

Ec
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Serrano y Sanz wrote an excellent work on the post-Columbian history of the Chiriguano. Otten has written about their pottery. Lehmann-Nitsche has dealt with their physical anthropology. Works on their language have been published by several missionaries. I visited these

[1]) Vide Steinen (8).

Indians in the years 1908, 1909 and 1913, and spent in all 2 to 3 months studying them. In my book *Andinska* I gave a popular account of them as I got to know them during the Humboldt expedition in 1908 and 1909. In my last book of travel *Genom Anderna i Sydamerika* there is some information about the Chiriguano. I have brought home to Sweden from the Chiriguano and Chané about 1500 articles which are now in the Riksmuseum at Stockholm and in the Gothenburg Museum. In the Geographical Review I wrote a short article on the migrations of the Chiriguano Indians.

A close study of the Chiriguano and Chané civilisation by the ethno-geographical method affords points of especial interest, since their mode of life is rather well known, and we are able to trace their history back to the beginning of the 16th century. I have also collected archæological material from their region. At first I was minded to give an account of this, too, in the present work. I decided, however, that it would be better here only to mention individual finds by the way, and to leave the archæological material for another publication in which I shall be able also to publish certain archæological finds made in other parts of Bolivia. This for purely practical reasons.

I will here endeavour to make clear how the Guarani-speaking Chiriguano's and the Guarani-and Chané civilisations are composed, what culture-elements they have got from the Whites and from the Mountain civilisation in the west, what each brought to the common stock and what they possibly obtained from other quarters.

In this analysis of Chiriguano and Chané manners and customs, I do not intend properly to examine the question as to whence these Indians came to their present abodes. Broadly speaking we know that already. Regarding the Chiriguano migrations there are historical documents extant which evidently show that it was not until the beginning of the 16th century that these Indians conquered

the tracts they now occupy.[1] They drove out or subjugated the original population, which consisted chiefly of Chaui Indians. They made slaves of a great number of them and enriched a great number of women.

The Chaui are, as was mentioned, Arawaks and all traditions point to their having come from the north or north-west, where they have large numbers of kindred. It will be found that the present investigation confirms this. A matter of particular interest in this connection is to see how two peoples belonging to the most important groups of tribes in all America made adaptations in their mode of life when they had emigrated to places with strange natural conditions. Again, it is worthy of note how their civilization was transformed and the influence of the Stone-age civilization in the west and afterwards under the influence of the Whites. Further we shall see what they have, under their new conditions, been able to preserve of their original civilization. We shall gain insight into the way in which the civilization of two Indian tribes was transformed under the influence of other peoples and new natural conditions.

As in Part I, I deal chiefly with the material side of these Indians' life. Or rather, everything in their life which

1. [illegible]

2. Brett, basing his opinion on Curtelaer and Gravesande, has assumed that the Caribgnans invaded the Iwa Indies earlier than the beginning of the 16th century. But even if his assumption is correct, these Islands fell to an Arawakkian share. This is evident from the accounts of the invasion in the 16th century, when the Caribgnans expelled, what was everywhere an original story, but do we know whether by Caribgnans the Iwas did not mean barbarous tribes of the Chaui in general, and not any particular tribe. In these parts Caribgnans generally corresponded to the signification that Cannibal had in the district of Cuma, where it meant all sorts of barbarous Indian tribes east of the Andes. The Caribgnans that Curtelaer met in Tiwa are Arawakkans speak of need by an enemy have been Chaui Indians. I have already pointed out [illegible] that Curtelaer's description of the Caribgnans is absolutely irreconcilable.

[illegible] 0 0 / [illegible] 1909
970 Chiriguano F939
Chaco F9

the earth-plastering of huts is here an original Indian idea. I have attempted to indicate on a map the distribution of huts with earth-plastered walls, but I refrain from publishing it because, in the majority of cases, I cannot ascertain whether the Indians learned from the Whites to plaster their huts. Huts with earth-plastered walls are found among the Indians around Rosaina in Guiana[1] and among the Ipurí in Colombia. The Indians at Yuipurí used to have such huts, and Orton[2] mentions them from the Caingang etc. Earth-plastered mortise huts are also common in the Sierpe valley in Bolivia.

The Chané on the Río Itiyuro, but not those on the Río Parapití, and the Chiriguano have stone-huts on piles.[3] Occasionally the huts and dwelling-house are combined in such wise that the people live on the ground-floor and store their maize on the first storey. During my travels I have only seen huts on piles among the Ritaxo-Guinnay (one only), Matacco Vejos, and the Chorotis (one only). Some Guaicurú huts between the Río Chaguay and Corbalambo are built on piles. I scarcely think them are original, however.

Jhering Lehmann has written a treatise on pile-buildings all over the world. He mentions their occurrence among several tribes in northern S. America, which are shown on the map below. The village on piles from Lake Flato mentioned by Lehmann after Hennell is, of course, not Indian, nor are the huts from the Argentine

[1] Im Thurn.
[2] Orton (p). P. 29.
[3] Orton P. 139. Castelnau, P. 308.
[4] Orton + Nimuendajú (p) P. 29.
[5] Clearly Lehmann. Of most speaks of the maize-huts of the Chiriguano «die dienstar on el habito, sino fuera, las espaldas espiran con unas pirwas de mala pinta» el habito (pirwa es un cercado redon de dos varas de largo, colocados de cañas, donde se encierra el maiz).

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[illegible]

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[illegible]
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[illegible]

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Pampas in which the corn is stored to protect it from insects.

The above-mentioned village and house I have, therefore, left out of my map. Paress Schmidt's mention pile-buildings from other tribes too.

Paressmann has also collected numerous statements relating to the occurrence of pile-dwellings in S. America from the works of older writers.

The table and map which follow show the distribution of pile-buildings in S. America according to Lehmann, Paressmann and Paress Schmidt, together with some additions and corrections.

On the accompanying map I have merely indicated those which were certainly to be of Indian origin. Those mentioned at the end of the 15th century, as well as those from the 16th are no undoubtedly. I am convinced that the pile-buildings of the Chaco and Chiriguano are genuinely Indian, as one knows in this region do the Witoto possess such houses. Their geographical distribution leads us to presume their genuinely Indian origin, as also that they are a culture-element which came to these Indians from the swamps of Mojos, and that they have one an Arawak culture-element too. The use of pile-buildings on hard ground is quite comprehensible to me, as they offer great advantages, whether used for horse or dwelling-houses. The idea must have come, however, from some marshy tract or from a sea-coast where the inhabitants were dependent on ebb and flood tide. In the cases where a people employ pile-buildings on hard ground which is not liable to floods, it is due, as a rule, to conservative ideas — the mode of building to which they were accustomed in their former dwelling-places has become indispensable.

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1) P. omg.
2) (a) P. ob

5:Nordenskiöld E-5, (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8
South American Indians S3

The notion that the pile-buildings employed as barns are here of different origin from those used as dwelling-houses, is unlikely. There is nothing in the geographical distribution to support this idea.

Outside their barns the Chiriguano and Chané have ladders consisting of logs in which steps have been hewn.

Table 1.

Pile buildings. Map. 1.

4. Chiriguano.
5. Chané.
6. Mataco-Vejos. Have evidently copied the Chané barns.
18. Quichua.
25. Mojo, MARBAN P. 132. Cooking-shed.
39. Goijiro, PATER SCHMIDT P. 1064. (after ERNST); Parauhano, JAHN.
47. Indians Roraima: Wapisiana, Arecuna, Macusi, Patamona. PATER SCHMIDT P. 1064; THULIN.
62. Chacobo.
68. Omagua. »Hicieron los indios dentro de sus mismas casas unos tablados de madera, que ellos llaman Iuzas y encima de ellos estuvimos tres meses, que fueron los de Abril, Mayo y Junio con más de seis palmos de agua debajo.
Entraban y salian las canoas dentro de las casas, y de noche quedaban de bajo de los tablados.» LAUREANO DE LA CRUZ P. 8; [MARONI] Vol. XXX, P. 197.
01. Indians on the west coast of Columbia. PIZARRO P. 204; CIEZA DE LEON (1) P. 95; OVIEDO T. 3. P. 8; ANDAGOYA P. 76; ROBLEDO P. 277.
3 F. Barbacóa, RIVET (4) AND VERNEAU P. 39.
4 F. Indians on and near Lake Maracaibo. NAVARRETE T. III. P. 8; »A quatro dias llegaron à un pueblo de güerigue-

6:Nordenskiöld E-S,(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

C 241 water-melons, melons, figs, tuna[1]), oranges, cotton, millet, and reeds for arrow-shafts.

Ce 241 [245] C Ce [244] C Ce [177] [262] Bananas are not cultivated. Among the Chané at the Rio Parapiti the sweet-potato is the most important cultivated plant. Of the plants mentioned, the sugar-cane, the melon, the watermelon, the fig, the orange and the millet are not American. All those cultivated plants which have been introduced by Europeans are of slight importance to the Indians. I have never seen mandioca cultivated, but I have heard that it is to be met with in the fields of these Indians. As a staple food of the people it is of no importance here.

C Ce 412 177 Iron spades bought from the Whites are the tools employed nowadays. Very occasionally one still sees wooden spades. In Part I I have published a map of the geographical distribution of the spade.

The spade in S. America is evidently a western element of culture, i. e. the idea of fitting on a more or less broad blade to the lower part of the digging-stick is plainly derived from the western area of civilization.

Whence the Chiriguano got the idea of the shapely handles I do not know. They are too shapely for the art to have been derived from the Whites. They have obviously a long evolution behind them, and it is very probable that they had their origin in the Mountain area of civilization.

Hoes with iron blades occur. The Indians have got them from the Whites. I have not seen any primitive hoes, although we are here on the border of the area of distribution of the genuine American hoe[2]).

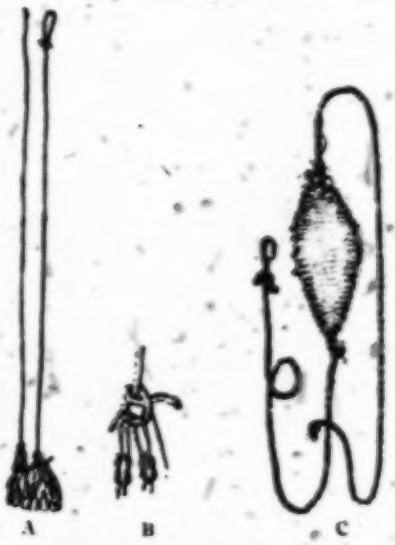
The Chiriguano and Chané use a small implement for removing the corn from the corn-cobs which I have described in Part I. P. 32.

C Ce [114] [1]) Opuntia.

[2]) It is incorrect to affirm, as Wissler does, (P. 25) that the hoe was unknown in S. America. Incas had hoes and they are found still among the Quichua.

S:Nordenskiöld E-5 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

In a weighty article E. VON ROSEN (3) has criticised my opinion that the pellet-bow was possibly brought from India to S. America by Portuguese sailors in post-Columbian times. He is quite correct in the statement that the thick part in the middle of the bow is not for strengthening but is merely for better grip. This holds concerning both the Asiatic pellet-bows and some of the American. This contrivance is practical but not indispensable. It is certainly not little toy-bows alone that have not got it. It is quite wanting on the pellet-bows of the Choroti, Ashluslay, Tapiete, Mataco and Yuracáre. Presuming that the pellet-bow in S. America is of Asiatic origin, it is evident that the Indians who first learnt the use of the pellet-bow



A B C

Fig. 7. Slings.

A Chané, Rio Parapiti. 1/12. R. M. P. 293.
B Detail of A. 1/2.
C Chiriguano. 1/2. R. M. E. 168.

Fig. 8. Detail of pellet-bow. Rest for the pellet. Chiriguano. R. M. E. 391 1/2

StNordenskiöld E-5,4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

from the Portuguese have kept its Asiatic shape, while the tribes that received it later have made pellet-bows more like their usual bows.

Von Rosen puts forward the supposition that the S. American pellet-bow may be an imitation of the European crossbow. This is supported by the fact that the pellet-rests on some S. American pellet-bows (fig. 8) and the pellet-rests on some European crossbows are very similar. This similarity is extremely noteworthy. Still, I deem it unlikely that Indians should have hit on the use of pellet-bows because they had seen Portuguese crossbows — especially as I am not aware that the Portuguese in S. America used bullets for their crossbows. In any case the pellet-bow in S. America would be a post-Columbian culture-element.

It is quite true that some Indians, e. g. the Choroti and Ashluslay have their own words for pellet-bow. But it is a common thing for some Indian tribes to have coined words to denote objects introduced by Europeans. On the other hand, it never happens that the Indians that still speak their own language lack native words for objects which are plainly pre-Columbian with them. It is therefore of primary importance for the settlement of the question as to whether the pellet-bow was introduced in post-Columbian times to note the fact that several tribes lack native words for the pellet-bow, calling it »bodoque».[1])

The Chané call it »boroque». I am not acquainted with any Chiriguano name for it. A circumstance that speaks in favour of the pellet-bow being a post-Columbian culture-element is the fact that these bows are unknown in Peru, in Central America, and in Mexico, that is to say, in the cultural zones proper. There are not many of the elaborate culture-elements in S. America that have been unknown to

[1]) From the Portuguese.

8:Nordenskiöld E-5,4(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

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the most civilized tribes and only known to the tribes east of the Andes. This applies especially to those cultural elements that are of little or no importance in the struggle for existence. The pellet-bow is the only weapon of any importance which, as far as is known, was unknown in all the seats of higher civilization in America. If the pellet-bow is an original American invention, it must have been invented by a comparatively uncivilized tribe.

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The pellet-bow is nowhere in S. America of any great importance as a hunting weapon. The heavy hand of necessity has never spurred the Indians into making an invention of this kind.

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FRIEDERICI has pointed out to me in a letter that in MARTYR »De orbe novo» there is a statement about bows from the coast of Venezuela used by boys for shooting with pellets of clay or wax. This is plainly the same statement as GOMARA's that I quoted in Part I. MARTYR's statement is in the Eighth Decade, where he complains, that his memory was beginning to fail him. I believe there must be some misapprehension on MARTYR's part, and that the pellets in question were arrows with thickened heads of wax or wood. MARTYR cannot refer to pellets thrown by hand, as he plainly speaks of bows. It is not likely that wax pellets were used for clay pellet-bows, but, on the other hand, it is not at all unusual that arrows used in play should have thickened wax heads. Arrows of this kind have been brought from the Ijca in Colombia by BOLINDER. The pellet-bow is mentioned neither by missionaries nor by any modern authors as occurring in Venezuela or any other part of northern S. America. It is extremely unlikely that this desirable toy weapon should have existed there at the beginning of the 15th century and then entirely vanished. Such an isolated occurrence would be most peculiar and unusual.

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The clubs (fig.9) that I have seen among the Chiriguano and Chané have not always clearly defined heads like those of the Cherokee and Ashluslay.

8:Nordenskiöld E-8,4(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8

C
Ce
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*171
C
Ce
223
224
*171
114

my travels. Though rather an extensive collection, it is quite insufficient for comparative researches.

The bird-nets used for hunting, occasionally found among (4) the Chiriguano, are of great interest (fig. 13 and map 4). I have not seen hunting nets elsewhere. Bird-nets are mentioned by several writers from the Alakaluf. These Indians and the Chonos were also acquainted with seal-nets. The statements in literature about these nets are to be found in COOPER'S[1]) excellent work. CREVAUX speaks of hunting nets from (4S) the Miraña[2]). UHLE[3]) mentions finds of the kind in Atacama. JOYCE[4]) speaks of nets that were used for hunting deer and birds on the coast of Peru. He depicts a very interesting earthenware vessel found at Trujillo representing a deer-hunt in which the huntsmen used the throwing stick and the hunting net. COBO[5]) speaks of bird-nets from the Inca. PALOMINO[6]) mentions nets used for deer-hunting from Chuquimayo in northern Peru. Hunting-nets are also mentioned by ORTIGUERA[7]) and by the author of Jornada de Omagua y Dorado[8]) from the Aruaquinos on the Amazon. From what OVIEDO Y VALDES[9]) says, the Indians also used hunting nets on the Rio Orinoco. GOMARA[10]) mentions nets from Cumaná in which ant-eaters were caught.

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[1]) P. 190.

[2]) After DENIKER (2) P. 640. »Quoique vivant sur les bords de rivières poissoneuses, ils ne pêchent point et se bornent á chasser comme les anciens Quichua á l'aide de filets tendus entre les arbres, dans lesquels ils poussent, á force de cris et de gestes, les bêtes effarouchées.»

[3]) (3) P. 109.

[4]) (1) P. 124.

[5]) T. 4, P. 225.

[6]) P. XLVIII.

[7]) P. 370.

[8]) P. 448.

[9]) T. 2, P. 221. »Toman colorniçes y conexos y tórtolas en mucha cantidad con laços y redes: assi tambien zorras y raposos, como muchos puercos salvajes de los que llaman *vaquiras*.»

[10]) P. 206.

StNordenskiöld E-5/4 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chane SF8

SUAREZ DE CEPEDA[1]) in his most interesting treatise on the Colima-Indians in Columbia, tells us that they tried to catch comets, which they imagined to be birds, with nets which they placed in their fields. This seems to prove that these Indians knew the use of bird nets. CASTELLANOS[2]) states that the Indians in the valley of the Patia (in southern Columbia) tried to catch the Spaniards' horses with nets. Most all of these authors who speak of the hunting net belong to the sixteenth century. This should give those who are doing work like mine some food for reflection. It proves how perfectly indispensable this old literature is as a means of learning the ethnology of the S. American Indians. *How imperfect a map of this kind would have been without the old literature!* One may ask why hunting nets are so scarce now. This is apparently owing to the fact that in most places where hunting nets have been in use the Indians have lost their original civilization. The above authors not having given us a detailed description of the nets, we do not know if they resemble those used by the Chiriguano. We are not even always told what was caught in these hunting nets.

The deer-nets used on the Peruvian coast were of course considerably larger than the nets used here. Their shape also was quite different. The Chiriguano nets are clap-nets and are used in the following way. The net is spread on the ground at a spot where there are plenty of pigeons. The pigeons are decoyed with maize to settle between the two halves of the net. A string runs from the net to a fowler

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[1]) P. 317. »Los rrayos que se estienden y esparcen de la cola ó cabeça de la cometa dizen que son plumas y pelos del paxaro que yendo bolando las vá despidiendo para fin de las cosas que viene á acabar: y para mitigar y rregalar la yra de la furia atajando por algun buen medio ..... y en sus labranças arman unas rredes de hilo muy de proposito estas dizen que son para enrredar y caçar en ellas la pobre cometa.»

[2]) P. 457.

5:Nordenskiöld E-5 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

V.

Fishing tackle.

Three methods of fishing are known to the Chiriguano and Chané with, moreover, a northerly distribution. These methods are the use of the fish-spear or fishgig, the use of many pointed arrows, and fishing with poison.

I have not seen the fishspear among the Chiriguano. ERIC VON ROSEN[1]), however, depicts one from this tribe which is preserved in the Riksmuseum in Stockholm. Something like it from these Indians is mentioned by ACOSTA[2]).

The Guarayú[3]) spear eels with two single-pointed spears of »chonta». According to EDER[4]) the Mojo used fish-spears with three points. They did their spearing by torchlight and fixed the torches in the prow of their canoes. According to FREIREISS[5]) the Coroados had double-pointed fish-spears. KOCH-GRÜNBERG[6]) mentions triple-pointed fish-gigs from the Huhúteni and other Indians in northwestern Brazil. The Indians in the northwest of Brazil also fish by torchlight. The Indians at Lago Titicaca[7]) use triple-point-

[1]) (1) Pl. XIV.

[2]) T. I, P. 236 »Otro género de pesca vi, á que me llevó el Virey Don Francisco de Toledo; verdad es, que no era en mar, sino en un rio, que llaman el Rio Grande, en la Provincia de los Charcas, donde unos Chiriguanas se zabullian debajo del agua, y nadando con admirable presteza seguian los peces, y con unas fiscas, ó harpones que llevaban en la mano derecha, nadando solo con la izquierda herian el pescado, y así atrevesado lo sacaban arriba, que cierto parecian ellos ser mas peces, que hombres de la tierra.»

[3]) NORDENSKIÖLD (9) P. 177.

[4]) P. 301.

[5]) P. 271.

[6]) (2) T. 2, P. 34, Fig. 9. See also WHIFFEN P. 113.

[7]) NEVEU-LEMAIRE P. 73.

S:\Nordenskiöld E-5\(1908-1909, 1913) 1950
SF10 Chiriguano SF10
Chane

VII.

Tools.

C 442 [1114]

With the exception of bone awls the Chiriguano Indians of to-day have no genuinely Indian tools. Bone awls which I have already dealt with in part I very rarely occur among the Chiriguano. I omitted to mention this in the German edition of Part I.

VIII.

Fire-making.

C 372

Once only have I seen a Chiriguano Indian making fire by wood friction. He had forgotten his matches. Flint-and-steel are also seldom seen among these Indians now-a-days. In my collection there is a cotton-plaiting, in a wooden pocket from the Chiriguano. The Indians use such for tinder when striking fire with flint and steel. The idea of this was of course obtained from the Whites.

C [1177]

Schmidenhöfel E-87 (1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

and from the Ashluslay, Guarayú-Pauserna, Siriono, Guarayú (mission) Corocotoques, Mojo, Carios-Tupinambá, Quichua, Paresni-Kabiši, Chiquitos, Guarani in Paraguay, Xarayes, Guayaná and Payaguá, Occasionally they occur among the Mataco as well. BARBOSA RODRIGUES mentions the tipoy from the Tembé. Judging by LANGE's photographs the Ararandeuara girls seem to wear small tipoys in ordinary hammock technique.

Those from the Quichua do not, however, correspond to others whose style we know, for the former used to be open on one side and only seem to have been sewn up under the influence of European ideas of modesty. Consequently I was rash in concluding that the tipoy was an original feature of western civilization, as I did in the first part of this book. Most likely it is of quite a different origin.

When the Chirignano and Chané women used the tipoy as a garment, they did not, as we shall see below, get the idea from the mountains or from the Whites. It is, however, certain that the Whites and at an earlier date the Mountain-culture Indians may have influenced them to make the tipoy longer and more »seemly». Contact with other people wearing clothes has made it fashionable to be clothed.

My attempts to investigate the distribution of the tipoy in northern S. America has caused me a lot of trouble. Descriptions of Indian apparel by early authors are, unfortunately, not as detailed as might be desired. OVIEDO mentions a woman's dress »saya» from the region of Lake Maracaibo, woven without seam »sin costura», which may have been a tipoy.

In a narrative of PEDRO TEXEIRA's journey up the Amazon[1]) we read that almost every tribe goes naked, the men completely, the women above the waist, covering the rest

[1]) T. XIII, P. 437.

5:Nordenskiöld E-5,4(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

C
Ce
291
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*171

of the body with a garment resembling a »pampanilla». This may mean the tipoy, but also something else[1]).

C
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854
*171
482

As MAX SCHMIDT[2]) has pointed out, the Paressi make their tipoys and their bearing-bands (to carry the children) in exactly the same way. The bearing-bands used by these Indians are identical with the tipoys in both shape and material. They differ from the latter only in being somewhat longer in proportion to their width. STADEN[3]) speaks of the »typpoy» as a garment. In an anonymous early description, also from the coast of Brazil, printed in PURCHAS[4]), the bearing-band is called »tupiya». The same word is thus used by the Guarani-speaking Indians on the coast of Brazil both for the bearing-band and the female dress. In some parts the same article has, indeed, been used both as a bearing-band for children and a woman's garment. According to BARBOSA RODRIGUES[5]) it would seem to be so among the Tembé Indians. The bearing-band does not occur among the Chiriguano and Chané; they carry the child cradled in the tipoy.

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*171

I do not consider it too bold to assume that the tipoy and the bearing-band have the same origin, and that the one has suggested the other. In all likelihood, the bearing-

[1]) It is obvious from the following quotation from OVIEDO (T. 2, P. 271), where he tells of the female apparel of the Bubores living near Lake Maracaibo that the »Pampanilla» also might mean a small piece of cloth covering the genitals. »y las mugeres una pampanilla ó pedaço de algodon texido tan ancho como un palmo colgando delante de sus vergüenças».

[2]) (4) P. 218.

[3]) T. 2, P. 3. »/derselbigen wilden weiber machen dinger von baumwollen garn/ wie ein Sack vnden vnnd oben offen/ die ziehen sie an/ und heyssen auff ire sprache Typpoy».

[4]) P. 1391.

[5]) (2) P. 42. »As mulheres . . . . . usam uma facha larga de algodão tecido branca ou tinta de urucu, passada a tiracollo sobre o hombre direito, que pendendo sobre o corpo, encobre-lhes a parte vergonhosa e serve para nella trazerem constantemente filhos. Dão a esta facha o nome de *tupóy*»

S:tNordenskiöld E-8,4 (1908-1909. 1913) 1920
SF10 Chiriguano SF10
Chané SF8

Both men and women among the Chiriguano and Chané have sandals which, however, they seldom wear. In Part I of this work I have given an account of the geographical distribution of sandals in S. America. Obviously sandals are a cultural element which the Chiriguano and Chané have got from the area of civilisation in the west.

A pair of sandals with fastenings differing from the usual kind are depicted here. A sandal with very similar binding but of another shape is described and depicted by ERIC VON ROSEN[1]) in his recent, splendid work.

The Chiriguano and Chané wear girdles which as a rule are woven, though they are sometimes made of leather. As I pointed out in Part I, the woven girdle belongs to the western cultural elements and the leather belts to the southern. The leather girdles worn by the Chiriguano and Chané are provided with pockets and sometimes ornamented with coins, and are consequently imitations of the gorgeous cincture worn by the Argentine gauchos. NINO[2]) is of the same opinion, and he points out that they are called »bosa» (from the Spanish word »bolsa»[3]) owing to their being provided with a pocket.

As already mentioned in Part I the woven »head-band» or frontlet also belongs to the dress of the Chiriguano and Chané-men. The frontlet is certainly a western culture-element.

Chiriguano and Chané shirts and ceremonial tipoys are of native make and are often dyed blue with indigo. The frontlets are blue or red. Chiriguano and Chané women wear a kind of hair-band with tassels which they most likely learned to make in the missions.

[1]) (4) Fig. 84, P. 127.

[2]) P. 191.

[3]) »Bolsa» is »bosa» in the Chriguano languages as these Indians do not pronounce l.

Schlenker-Schild E-Sp(1908-1909, 1913) 1930
SP10 Chiriguano SP11
Chané SP8

The back is somewhat concave enabling it to rest conveniently on the chin-bone. The front is round and flat and does not project beyond the lip. The metal is hollowed at the front and filled with wax, in which are fastened green or blue stones or glass beads of the same colours. In a grave at Caipipendi I found a tembeta of wood of the shape here described, in which a round piece of green glazed earthenware is inserted. For every-day use both the Chiriguano and Chané sometimes have lip-buttons of wood which are shaped like flat wooden cylinders. The Chané usually have smaller lip-buttons than the Chiriguano. Cunoff[1]) mentions lip-buttons of resin among the latter Indians from the 18th century.

I make no attempt here to show on the map the distribution of lip-boring in S. America.[2]) As was mentioned, it is very considerable. The idea of inserting stones or beads fastened with wax in the tembeta is almost confined to the Chiriguano and Chané.

It might almost be suspected that they got this idea from the Whites, who now have an extensive manufacture of metal tembetas in order to sell to the Indians. This is not the case, however, for SCHMIDEL writes of the Karkhokhies (Gorocotoques)[3]) who dwelt in N. W. Chaco: — »Pero sus mujeres tienen un canutillo asegurado à los labios en el que meten ellas una piedra verde ó gris«. Of what material this »canutillo« was, we are not informed. In Chili[4]) a tembeta of stone has been found with a cavity in which possibly another stone or the like had been set.

The metal tembeta is here probably, though not neces-

[1]) P. 331

[2]) (This) because few of the old writers have given any detailed description of lip-buttons.

[3]) (1) P. 264. (2) P. 94. »Ihre weiber aber haben ein kleins röhrlein gemacht in dem lefzen, darein sie ein grienen oder grabenn christallen stein stechenn.«

[4]) SERENA (1) Fig. 77. From Freirina.

Mitteilungen II-4,4 (1908-1909. 1912) 1910
IP10 Chiriguano IP10

XIV.

Stained Teeth.

It was already related by VIEDMA[1]) that the Chiriguano stain their teeth. I have seen Chiriguano women in the Caipipendi valley stain their teeth a blackish blue with the leaves of a plant called «tajú». LASCH has made a study of the custom of staining the teeth among S. American Indians. He speaks of this custom from Cumaná, quoting GOMARA, according to which author the women stained their teeth at the death of their husbands.[2]) He further mentions that this custom prevails among the Miraña,[3]) the Piro,[4]) the Goajiro[5]) and the Arawaks[6]) in Guiana. To this I can, as shown by the map and table below, make several additions.

[1]) P. 181.

[2]) I have looked through all available editions of GOMARA in order to find this statement, but in vain. What I have been able to find about stained teeth in GOMARA P. 205—206 I give here.

«Préciance de tener muy negros los dientes, y Raman mujer al que los tiene blancos, como en Cariana.... Hacen negros los dientes con zumo ó polvo de hojas de árbol, que Raman ahí los cuales..... a los quince años, cuando comiençan á levantar la cresta toman estas yerbas en la boca, y tracnlas hasta ennegrecer los dientes como el carbon; dura despues la negrura toda la vida.»

[3]) From MARTIUS.

[4]) » RAIMONDI.

[5]) » WAPPÄUS.

[6]) » MARTIUS (1). He writes. T. 1, P. 691, «Schwärzung der Zähne, die GOMARA, Cap. 73, von den alten Caraiben angiebt soll hier auch vorgekommen sein.» This statement seems so vague, that I have not indicated it on the map. As far as I know it is not confirmed by other authors writing on the same Indians.

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[531]

The Chiriguano, as well as the Chané at Rio Itiyuro, have elaborate pottery of richly varied shapes and often beautifully ornamented. The Chané at Rio Parapiti have plainer pottery. The development of the ceramic art in the various tribes I got to know has differed greatly. The Chima and the Tambopata-Guarayo who are pretty certainly identical with them, are the only Indians I visited who have no earthenware vessels. The pottery of some tribes is a work of art, while others only make the most necessary household utensils. This is not necessarily connected with the tribe's state of civilization generally. Thus in several respects the Yuracáre stand as high as the Chiriguano but the former have very poor pottery; the latter highly developed pottery. If such peoples were studied archaeologically, the former would yield hardly any remains while the latter would yield many beautiful specimens. Wrong conclusions might then be easily drawn as to the stage of civilization of the two tribes.

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Below will be found indicated how many different types of earthen vessels are found among the tribes I visited It will be seen that the Chiriguano and Chané (Rio Itiyuro) have by far the largest number of shapes of earthen vessels.*) This is simply due to their having experienced such

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[126]

*) On entering a Chiriguano or a Chané hut, one sees a lot of earthen vessels of which the majority are unpainted. All the vessels of various shape and ornamentation which I have collected are from several hundred Chiriguano and Chané huts. It is a selection out of many thousand vessels which I have made and it shows how pottery varies within the tribes. In most Indian huts there will be found but a small number of different types. Unless we bear in mind that the collection is a selection, it leaves the impression that the pottery of these Indians is of much more varied shape than is really the case. What I remark here of my collection of pottery holds good of nearly all collections in ethnographical museums. When we see a cupboard full of various articles from an Indian tribe, we must not think that all these things are used by every family in the tribe. It is properly a collection of all the different objects used by a large number of individuals.

S:Nordenskiöld E-5,4(1908-1909, 1913) 1920
SF10 Chiriguano SF10
Chané SF8

Chané at Rio Itiyuro. This may be owing to their poverty.[1] Maize-beer does not flow so abundantly there as it does among the Chiriguano and the Chané at Rio Itiyuro. The finely painted vessels are intended for festivals, and it is especially on those occasions that one sees double pitchers and other types reminiscent of mountain-culture pottery. The Chané at Rio Parapiti dwell rather remotely, at a considerable distance from the culture-area in the west. Their calabashes, too, are more plainly ornamented than those of the Chiriguano and the other Chané. This may be due partly to poverty and partly to their isolated habitation.

[1]) I regret that I did not study the question of the supply in different places of good clay suitable for earthenware. Where the clay has to be brought from afar, it is unlikely that the pottery will be highly developed.

NNordenskiöld E-8,N(1908-1909, 1913) 1920
EF10 Chiriguano EF10●
Chaco EF1
South American Indians S3

Notes on the Bibliographical maps.

S
C
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113
114●
128
102

To this bibliography several maps have been added which ought to prove useful from many points of view. *The maps indicate the territories concerning which the authors quoted in parts 1 and 2 made their investigations.*

The first map shows the literature from 1498—1600, the second from 1600—1700, the third from 1700—1800, the fourth from 1800—1900 and the fifth from 1900—1920. We find a separate map of the archæological literature. Several important works are unfortunately missing which I have not been able to study. It is difficult and expensive work to collect the literature on the S. American Indians. Not the least difficult of access are certain works printed in S. America during the 19th century. For my ethno-geographical studies I have of course read a number of books without finding anything to quote from them and consequently they are not mentioned here. I desired especially to show the merits and demerits of the maps of the distribution of the cultural elements here published. The maps of the authors' names show us the districts from which I have no material at all and those from which I only have the material of older authors, or only of modern writers.

Some authors have not travelled in the territories they have written about, but have drawn from the works of several other authors. The most remarkable existant work of this kind is COOPER's excellent work on all that has been written about the Indian tribes in southernmost S. America. If there were many such compilations, it would not be difficult to draw up maps of the distribution of the various cultural elements.

From the map that indicates about which districts the archeological treatises are written, we can see, even though

Schwedenstiftg E-4,4(1909-1909, 1913) 1910
EF10 Chirigoano EF10
Chaco EF8
South American Indians 53

S
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113
114
128
102

some names are missing, what immense territories in S. America are still entirely unexplored archeologically.

The bibliography includes some authors whose names will not be found in the maps, i. e. FRIEDERICI and PAUL SCHMIDT, great as their services to the ethnography of S. America have been. This is because they have written comprehensive works dealing with the ethnography of the whole continent, and not with any particular part of it.

When I have quoted from several works by the same author, these are numbered 1, 2, 3, etc. in the bibliography. The same work has the same number in the First and Second Parts of my own book.

Gt Nordenskiöld--3 E 5 (1908-1909) 1912 SF10 Chiriguano SF10
Tapiete SK13
Chané SF9

Cc 123 648

/130/

Unfortunately, I do not know whether Vacapey undertook the long journey to the village of the great chief, but, as a result of the surveying, I won the confidence of the Indians.

Cc 142 302 291

Fig. 75. Chané Indian
Río Itiyuro.

Cc 123 648 C 4 114 999 T 114 101

When I left the Chiriguanos and the Ashluslay at the end of July, 1908, I proceeded by way of Yacuiba to San Francisco on the /131/ Río Pilcomayo. San Francisco was a mission station which the Franciscans had had among the Chiriguano, but which (Fig. 76 appears here) has now been abandoned. Not far from it live the Tapiete Indians, among whom I spent a week in August, 1908.

/132 cont./

earrings with real "diamonds," rings with "sapphires," or other fine things, which the could then show off at the next drinking bout.

There are always two villages in these mission stations, one for the heathens, one for the Christians. I myself always felt more comfortable in the former, and this not only because many fine, old things were to be collected there, but also because the people there were friendlier, more tactful, and more polite in their behavior. The mission children were importunate and impudent.

Near Macharetí there is a large basin-shaped valley through which flows a little brook that probably swells to a roaring river after a violent tropical rain and disappears in the wilderness of the Chaco. Quite near the mission it leaves the handsomely dissected mountains, where small petroleum springs trickle out everywhere in the crevices of the cliffs. Then it flows through a hilly landscape that gradually turns into the vast flat area of the Chaco. The vegetation in these regions is not very luxuriant. The woodland, when such is present, is sparse, low, shrubby, and monotonous. The fields seem to produce abundant harvests, the drought seldom too long. These regions are often devastated by huge swarms of locusts. I have seen these destructive animals cover the woodlands like large, reddish-brown clouds.

From Macharetí we went by way of Itatiqui, a very interesting Chiriguano village in an arid region, to the Río Parapití.

The latter comes from Pomabamba and Sauces, from the /133/ mountains of the Quichua /Quechua/ Indians. After it has left these, in the rainy season, it is a roaring stream overflowing its banks. In the dry season it carries little water. The Río Parapití also ends in the Chaco. During the rainy season it is lost in the swamps, in the dry season it disappears in the fine sand. If the Río Parapití parades on the maps, as the southernmost tributary of the Amazon River, this is only empty boasting on in part. The woodlands along the Río Parapití consist mostly of bushes and low, fine-leaved trees, caraguata, and cacti.

/153 cont./

In the dry season the wind heaps large dunes along the banks of the river. After it has left the mountains, it does not receive a tributary. The Rio Parapiti is very wide, but never deep. During the driest period its bed is transformed into a sand desert where the wind plays with the fine river sand. When it storms, the sand is swept across the bottom of the river. If one wishes to cross it on such days, one may perhaps not get his feet wet, but he must shield his eyes.

The Rio Parapiti is rich in fish, but the fish are tiny. The banks are quite fertile, but inasmuch as they are flooded during the rainy season, the harvests are easily lost. Often in the dry season everything is wasted by the scorching droughts. The locusts, too, hawk about in these regions and leave behind in their own unappetizing bodies a poor substitute for what they have destroyed.

On the Rio Parapiti, high up in the mountains, live the Quichua Indians, then come the Chiriguano, beyond them, near the river, the Tapiete, also called Yanaygua, then the Chané, and finally, in the unknown wilderness, the Tsirakua Indians.

My first visit on the Rio Parapiti was paid to Father Carmelo, who had a small mission station there among the Chiriguano. I became very fond of this monk; /154/ he had such confidence-inspiring friendliness. He is one of the missionaries who are needed here, people who desire and are able to sacrifice themselves for others, who show an equally great friendship toward all.

I now continued along the Rio Parapiti to Isiporenda on the north bank of the river. The Tapiete live opposite Isiporendo. I shall later describe a visit that I made to them.

At Isiporenda I met the first Chané, or, as they are called here, Tapuy. I then visited most of their villages. I made the acquaintance especially of some of their storytellers, of whom Batirayu, the nephew of the last great chief, Aringui, became my good friend.

From the lower Rio Parapiti I proceeded by way of Charagua, a village inhabited almost exclusively by whites, to the Caipipendi valley, where I stayed with the Chiriguano chief Taruiri.

/154 cont./

One might be surprised that a person would want to live in this treeless valley, where one finds only salty, dirty water, but in the Caipipendi valley one need not drink water, for here the maize yields magnificent harvests and there is never a shortage of maize beer. The inhabitants of the Caipipendi valley are wealthy, and if there is famine in other regions, the Indians come from afar to these kinsmen, in order to barter their valuables for maize.

For the collector, too, it is a magnificent valley. We found silver ornaments, silver bowls, finely carved musical instruments, and many other rare articles in this ethnographer's paradise. Stone axes, ruins, diggings /Grabfelder/ of various peoples prove that the Caipipendi valley has long been highly prized by the Indians.

The water has cut deeply into this valley. In the rainy season it probably rains there too.

From Caipipendi I returned over the mountains, through a /155/ valley famous for its hot springs and its beauty, to Charagua, to continue then along the Andes in the direction of Santa Cruz de la Sierra.

It was October, 1908. Not quite a year later, in July, 1909, I again visited the Chaco, after extensive river journeys far beyond, on the border of Brazil. In another book I shall describe these journeys on large, navigable rivers and through virgin forests whose luxuriant green is overpowering.

From Santa Cruz de la Sierra I returned, as was said, to the Chaco in July, 1909. I then traveled first of all by way of the Rio Grande to the Rio Parapiti, chiefly to visit my friend Batirayu.

The Rio Grande is the southernmost tributary of the Amazon River. It comes from the highest mountains of the Andes and flows past Sucre, a city that has long contended with the city of La Paz for the rank of capital of Bolivia. When it emerges from the mountains, it is a roaring, mighty river. Farther down it has an extremely changeable, very little known course. North of Santa Cruz de la Sierra the Rio Grande receives the Rio

/157 cont./ One old woman who was supposed to know Chané very well said she would teach me after she had reached the realm of the dead. Since the Indians in this happy place are not bothered by whites, and not by ethnographers either, the promise of the old woman was not very friendly. Ce 124 197 123 ce

The Chané use their old language for many expressions that are abusive, for example, karitimisóyti, which they translate as son of a w---e. An invitation to coitus is called pocõne. There are also songs in their /158/ old language, for example, siparakinánoyé, siparakinánoyé, siparakinánoyé, tonéya, tonéya, tonéya, which they did not know how to translate. 195 197 Ce [533] c

From the Rio Parapiti I again visited the Chiriguano chief Taruiri in the Caipipendi valley, where I sought to buy as many old ornaments and other valuables as possible. Besides Taruiri I also visited another chief, Yumbay, an old worthy who was always embracing me and saying: "I am Yumbay." /Fig. 77 appears here./ "Yes, the great, mighty Yumbay," I chimed in, which made the poor reduced fellow feel very flattered. 114 126 C [123]

From the Caipipendi valley I went by way of Pipi to the mission at Ivu. This lies in an arid, lonely region with little water, near several huge mountains, and the life there must be dreadful. When smallpox was very prevalent in the region, Father Bernardino successfully prevented the disease from spreading into the mission by vaccinating all the Indians living at the place. Father Bernardino is a truly unselfish human being, a genuine missionary. As a result of the vaccination, no one in Ivu died of smallpox, whereas the sinister disease raged frightfully among the whites a few miles from the station. It almost served them right. If anyone died of smallpox, the corpse was laid on a table decorated with paper flowers and a crucifix. Around this the other swine would get drunk and /159/ continue to drink obligos (1) until they were finally lying on the table. C 797 164 [114] [133] [312] C [764] C [273]

1. If a person drinks obligo with another, the latter must drink up. C [576]

/159 cont./
In the village of Cuevo alone 60 out of 200 persons died within a short time. I visited the 140. They were as gay as ever. Spirits and beer were consumed in quantities.

Father Bernardino was never given credit for this work, but rather the medicine men, who had bewitched the sickness so that it would not come to Ivu. The white colonists, too, occasionally had the medicine men come in order to /Fig. 78 appears here/ drive away the sickness. They did not believe in the vaccine either.

With Ivu as the starting point, I made a trip into the

Fig. 77. Clay vessel made by the wife of the Chiriguano chief Maringay. 1/6.

Igüembe valley, in order to visit the Chiriguano chief Maringay. It was a charming ride on horseback up on the high crests and down into deep valleys, through an often grandiose, colorful landscape. These valleys are poor in forests. Only in a well-protected ravine in which a brook trickles forth is the vegetation luxuriant.

I soon became very good friends with old Maringay. The old man was conservative, clung to the old customs, and felt that the Indians should be on good terms with the whites, but should preserve their old habits and customs unchanged. His village was extraordinarily interesting and very rich in old, fine things.

/159 cont./
things. The ceramics /160/ which I found there belong among the very best that I saw among these Indians (Figs. 77 and 78).

From Maringay I returned to Ivu by way of the mission station of Santa Rosa. It has a wonderful location. Like an old fortress, it is built on a narrow hill. Below it, in long rows, lie the grayish-brown Chiriguano huts surrounded by low woods of Mimosaceae, cacti, small algorrobas, and other fine-leaved trees. This woodland is seldom so dense than one cannot easily get out of it without a bush knife. When I was in Santa Rosa,

Fig. 78. Clay vessel made by the wife of the Chiriguano chief Maringay. 1/7.

it was the dry season and everything was burned up. Here too, however, rain probably entices the green out of the dry earth. Sometimes the rain is so long in coming, however, that the Indians do not get any maize and that means -- hunger.

From Santa Rosa one looks far out over the mountains and across the great plain of Boyuovis, over the country that was the native land of the Chiriguano, where, at Curuyuqui, they fought their last battle with the Christians, who assume the right to rob all weaker peoples.

After my excursion to Maringay I left the land of the Chiriguano and Chané and paid my second visit, already described in this book, to the Choroti and Ashluslay.

/161 cont./

In the wilderness of the Chaco there still lives a Chiriguano chief, Cayuhuari, in whose village no white man has been. It is said to lie on a big lake. Large herds of horses and cows graze there, and the maize granaries are always full. The Indians are rich there, because no whites are there. At least so it is said. 173 361

Cayuhuari, who has lived in the Chaco since the uprising in 1890, has an abducted white woman as a daughter-in-law. It is said that, with the Toba, he visited the sugar factories of northern Argentina. He had his daughter-in-law with him. The owners of the factory offered to rescue her from the Indians. "I do not want to leave them," she said. "With them I have my children." This answer honors her. 563

The manners and customs of the Chiriguano Indians have been described by several authors (4), mostly missionaries, /162/ 114 797

4. We find most of the literature cited by Domenico del Campana: "Notizie," etc., loc. cit. /"Notizie intorno ai Ciriguani (Notes on the Chiriguano)," Arch. per L'Anthr. e la Etn. Firenze, 1902. Page 61./ [113]

so that we know more about them than about the Choroti and the Ashluslay.

A part of what I have reported about these Indians is not new, though seen in a new light. Nevertheless, various things, especially concerning religion, differ from the descriptions of the various missionaries. What I have gathered here is from the Chané, and the missionaries know the Chiriguano best.

What I do not like in the various descriptions of the Indians by the missionaries is that they seem to be striving to paint their shortcomings in colors that are all too faint, so that their own "civilizing work" may seem as important as possible. The missionaries seem to me to be unable to describe the religion of the Indians objectively.

6: Nordenskiöld--15 E-5 (1908-1909) 1912 SF10 Chiriguano SF 10
S-Am. Indians 53

/162 cont./

C
114
797

When I read how the missionaries describe their own conquest of the land of the Chiriguano Indians, it does not please me to hear only about the courage of the former and the brutality of the latter. I do not deny that the missionaries were brave, but I admire more the love of freedom and the courage of the Chiriguano Indians. If it became too difficult for the monks, soldiers almost always came to their aid. The Indians yielded to the missionaries not only as a result of the "religion of love," but as a result of bullet and lead. The path to the one soul-saving church was not infrequently soaked with blood.

/163/

Chapter Ten

From the Land of the Chané and Chiriguano Indians

Indians as Geographers

S
823

Is there a single habitable place on the South American continent which has not been discovered by the Indians?

I venture to answer "no" to this question. We find Indians on the highest peaks of the Andes, there are Indians in the dry scrub forests of the northern Chaco, Indians rove about in the deep virgin forests of eastern Bolivia, the inhospitable islands around Tierra del Fuego are inhabited by Indians, in former times many Indians lived on the pampas of Argentina.

What a vast period of time these people required to discover every brook, every pool, every cliff, every grove on the South American continent. For four hundred years the white man with all his resources has sought to explore South America, and yet much more than one usually believes is still unexplored. He is acquainted with all the large rivers and trade routes in the interior of South America, but there are still vast regions that the foot of a white man has never trod. The Indians know every cranny, or at least have known it.

6: Nordenskiöld--24 E-5 (1908-1909) 1912 SF10 Chiriguano SF10
Chane SF 8

/171 cont./
on the Rio Parapiti make raids on the Tsirakua Indians. The Ashluslay also maintain, as my interpreter told me, that /172/ the Toba chief Taycolique, during his invasion of their territory in 1909, had several Chiriguano with him.

Batirayu said that in former times the Chané brought home the heads of their slain enemies and set them up on the plazas of the villages during festivals.

Fig. 82. Clay vessel of the Chané. 1/4.
Rio Parapiti.

/173/ Chapter Eleven

From the Land of the Chané and Chiriguano Indians

Everyday Life in the Chané and Chiriguano Huts

As a rule, I felt very comfortable in the huts of the Chané and Chiriguano. The life in these villages is exactly the same. If one describes one village, he has described almost all of them.

Like all the other Indians whom I visited south of Santa Cruz de la Sierra in Bolivia, these Indians live in villages. Some of these villages are quite large and inhabited by several hundred persons. Often many villages lie close together. The huts, as a rule, lie around a market place on which sweetsop trees are occasionally planted for shelter in the rainy season. The market places serve as playgrounds and meeting places. The huts, in contrast to the round Choroti and Ashluslay huts, are square, and their doors, facing the village, are set in the gable. They are made of cane or wooden slats, with roofs of grass. Not infrequently they are plastered with earth.

/208 cont./

Ce 551 untranslatable. Not infrequently a nickname is added to this name. Thus, for example, the Chané chief Boyra (Boy-snake) was called yűruhuasu, which means big-mouth. Indeed, old Boyra was a talker who had a great weakness for everything that was a bit indecent.

Ee 862 163 Mothers nurse for an unusually long time, and it is several years, as a rule, before they have another child. Perhaps the woman also aborts the fruit of her womb occasionally, like the Ee 849 Choroti woman, so that the family will not become too burdened.

F 163 In the mission station in Ivu I tried to gather statistics about the number of surviving children in 127 Chiriguano marriages and found that in ten marriages there were no children, in 27 one, in 35 two, in 29 three, in 13 four, in 9 five, and in 4 six. These figures, however, are quite uncertain. Nevertheless they show that here, as among many other Indian tribes, there is a sort of two-children system.

C 849 ●114 C [113] Corrado (2) maintains with certainty that infanticide occurs

2. Corrado: El Colegio Franciscano De Traija y sus misiones. Quaracci, 1884. Pages 526-527.

among the Chiriguano. It is done in desperate cases among us, too, and therefore the example cited by Corrado means nothing. C 849 The question is: does /209/ infanticide and abortion occur as an institution accepted by the tribe, as among the Choroti? /Fig. 110 appears here./

Ee 868 857 The Chané and Chiriguano children, as has been mentioned, are brought up in freedom. They spend their childhood playing. Gradually the child begins to help its parents in small matters, for example, in carrying water and wood, tying up /210/ the domestic animals, fishing, etc. The girls learn spinning, weaving, making clay vessels, brewing maize beer, etc. from their mothers. They learn everything by imitation. The boys pursue small birds around the village and in this way learn the use of weapons. The children accompany their parents to fish and to till. The boy

C 165 /215 cont./
President Belzu in Sucre. The latter governed between 1848-1855; thus, 100-year-old Maringay is obviously not more than about 80. An 80-year-old Indian is therefore the oldest of his tribe. C 145 Among the Indians one almost always sees /Fig. 112 appears here/ that the one who has grown-up grandchildren is very frail and senile and stands at the brink of the grave. Indian men and women mature very rapidly, but also age quickly. At 50 the Indian is an old man, at 70 a so-called centenarian. Im Thurn (1) likewise [114]

1. Im Thurn, op. cit., p. 190.

believes that the Indians do not grow old. /216/ He thinks that they seldom reach an age older than 40 or 50.

C 142 Maringay's hair was slightly gray. There are some Indian men and women whose hair is almost whitish yellow, but they are C [145] [164] rare (Fig. 112). I never saw a bald Indian. When they are older, their faces are deeply furrowed. Not infrequently they become blind in old age, less often deaf.

Ee 142 515 Among the Choroti and Ashluslay the appearance of old people is often frightening; they are dirty, emaciated, and bleary-eyed. This is not the case among the Chané and Chiriguano. These Indians know how to grow old in beauty, and even the old people keep themselves nice and clean.

Ee 756 If the Chané or Chiriguano Indian becomes seriously ill, the medicine man is sent for, as among other Indians.

The Chiriguano and Chané distinguish between two kinds of medicine men, whom they call "ipáye" or "ipáyepótchi." The Ee [754] former are good and lift the spell; the latter are able to lift the spell and to bewitch.

C 756 797 I once jokingly asked a Chiriguano whether Father Bernardino in Ivu was an "ipáye" or an "ipáyepótchi." The Indian answered dutifully, an "ipáye." The position of the missionary among the Indians is that of medicine man; he assumes their power and their influence.

C Ee 756 177 In the preceding I said that the whites in the vicinity of Ivu sent for an Indian medicine man to drive away smallpox.

c /293 cont./
539 South America. Since, however, this is not the proper place
171 for comparative studies with regard to the legends collected
by me, I have contented myself with only presenting the ma-
c terial.
539 As we have seen, we learn to understand some of the
religious conceptions of the Indians from the legends. They
are also interesting from the viewpoint that a whole assort-
ment of little features from the life of the Indians is repro-
c duced. They give us a glimpse into their imaginative life.
539 Only the content of the legends collected by me, not
●114 the form, is usable as research material. I hope that the
126 native South American ethnographers in particular will add to
the collection made by me and also write down the legends
in the original languages. In order to be able to do this,
however, a complete /294/ mastery of them will be necessary.
The best method would be to let the Indians tell these legends
into a phonograph.

Ce
Ee
824 The Indians and Natural Phenomena.
Ce
[773] In one of the Chané legends the story is told of how
Yahuéte, the two-headed jaguar, was on the point of de-
c Ce vouring the moon. Maringay called Yahuéte "Yahuaróhui."
[776] These Indians explain eclipses of the sun and moon by saying
Ee that the sun and moon are attacked by Yahuéte. The Choroti,
[171] too, as has been mentioned, speak of a predatory animal that
[776] attacks the sun and the moon.

If one wanders with an Indian through forest and meadow on a starlit night, the starry sky is his compass and his watch. He will point to Orion or some other constellation and show how much farther it will move before one arrives.

Ce
824 He does not give names to many constellations, but he knows them all. The Chané call the part of the Milky Way nearest the Southern Cross "yándurape," that is, ostrich-way; the Southern Cross, along with a few adjacent stars, is

7:Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

[P. 187]

CHAPTER VII.

The Chiriguano (I).

Ethnographical research among the Chiriguano. The Chiriguano country. The tribal name. Physical qualities. Dwellings. Pile-built granaries. Theories as to the origin of the practice of erecting buildings on piles. Fireplaces. Household furniture. Dress. Modes of dressing the hair. Face-painting. Ornaments.

During our journey from Tarija to Gran Chaco we came into touch with the Chiriguano Indians, and on the march, as well as during our stay in the Chaco-Andean border region, I was successful in getting together a small but valuable ethnographical collection from these Indians. It is in connection with the publishing of the most important type specimens of this collection that I consider it suitable to give a brief description of the Chiriguano mode of living. Only in one or two cases, where I have arrived at results diverging from those of other students, have I found it necessary to enter into fuller details.

Mention of the Chiriguano tribe has, already in the 15th and 16th centuries, been made by a number of writers, and it is especially in Franciscan mission literature, earlier as well as later, that much valuable information may be found as regards this tribe.[1] Among the literature on the Chiriguano that had been produced prior to our journey, it may be that the books written by Corrado[2] and Serrano[3] are those that best repay perusal, and of works subsequently published, those by del Campana[4], Lehmann-Nitsche[5], Outes[6], Nino[7] and Nordenskiöld[8] are especially valuable.

[1] A very full list of works dealing with the Chiriguano is to be found in Nordenskiöld (11) and (12).
[2] Corrado (1).
[3] Serrano y Sanz (1).
[4] del Campana (1).
[5] Lehmann Nitsche (1).
[6] Outes (1).
[7] Nino (1).
[8] Nordenskiöld (11), (12), (13) and (14).

[P. 190 is blank]

142

To me, the Chiriguano seemed to be of better physique than both the Puna and the Chaco Indians, and their cast of features, as a rule, to be less rough-hewn than those of the above-mentioned tribes. Herma ten Kate has taken anthropological measurements of four Chiriguano men, whose average height was determined at 160.1 cm.[1] Lehmann-Nitsche, who has made anthropological observations of 50 Chiriguano (40 men and 10 women), is my authority for the data I have grouped together in the subjoined table.[2]

141 127

The Chiriguano; some physical data.

Sex	Average height, cm	Shape of skull	Colour of skin, Luschan's scale	Colour of hair, Fischer's scale	Iris, by Martin's scale
Men.....	163.4	Dolichocephalic — mesocephalic	Majority 22	Majority 4	Majority 3—4
Women.....	151.7	Dolichocephalic — mesocephalic	Majority 18	Majority 4	Majority 3—4

142 The Chiriguano complexion is, accordingly, brown with a tint of yellow; the iris is dark brown, the hair black, coarse and lank. The growth of hair on face and body is very scanty.

361 The Chiriguano are not a nomadic people, but live in permanent villages, some of which are the abode of only a few families, whilst others contain several hundreds of inhabitants. At Ibitibi I was studying a Chiriguano village that, according to the Indians, was inhabited by about 300 people. This village was situated on a plain surrounded by wooded mountains (fig. 188). The huts formed a large circle, with the chief's hut in the centre. In the open space between the chief's hut and the rest, there were growing some close-foliaged trees (probably of the Bignoniaceæ family), affording much-needed shade. In earlier literature it is stated that the Chiriguano used to build a hut for strangers in the middle of the village plaza.[3] In many of the Chiriguano villages I visited, the huts were scattered about without any perceivable order.

● [114]

574 609

342 The huts are rectangular and with ridged roofs. (Figs. 188—192.) The walls either consist of perpendicular sticks, of tree-branches or reeds,

[1] Ten Kate (1), p. 26.
[2] Lehmann-Nitsche (1).
[3] Nordenskiöld (12), p. 2.

or a district threatened with flooding through rainfall or the flowing in of the oceanic tide. In my opinion, however, this has usually not been the case.

According to my thinking, it is the fear of predatory animals that has given rise to the pile-construction idea. Those granaries built on pole-supports, that are so commonly met with in widely different countries, have, we know, as a rule been constructed for the express purpose of furnishing protection against noxious animals, such as lesser carnivora, rodents and insects. As an example, the »njalla» of the Lapps is built

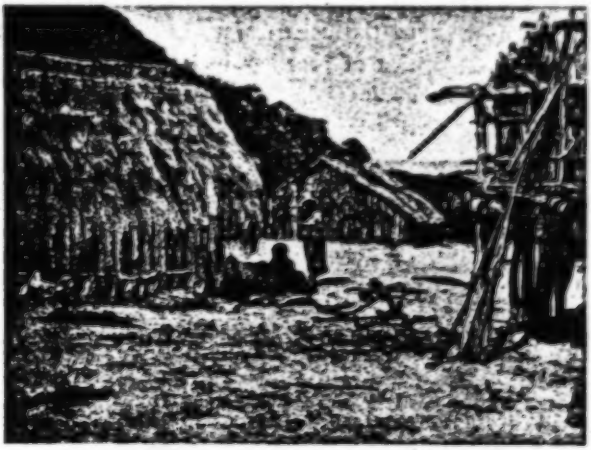

Fig. 192. Part of a Chiriguano village. To the right a pile-barn. Ibitibi. Bolivia. Photo. E. v. R.

as a protection against wolverines[1], and many of the native tribes of Africa erect their food depositories, or grain bins, on pole-supports to make them safe against mice and white ants.[2] Both the Balenge people, who inhabit a fairly arid country, and the Babisa, who live on the edge of the Bangweolo swamp, build their corn bins on piles.[3] As the Babisa often build their huts on a platform of beaten clay[4] (not piles, it will be noted) as a protection against the annual heavy floodings of the rainy season, this will naturally give rise to the supposition that the Babisa

[1] von Dueben (1), p. 35.
[2] von Rosen (4), pp. 411—412.
[3] von Rosen (4), pp. 332, 349 (fig. A), and 411—412.
[4] von Rosen (4), p. 319 and plate 67 (figs. C and D), also plate 68, fig. D.

[P 196 is blank]

experiment carried out at Rockelstad in the summer of 1919[1], the »stone-age men» soon found themselves compelled to build a »lave» so that the goats should not damage such foodstuffs and implements as had to be kept outside the hut.[2]

It is my belief that the »lave» has also supplied the idea of building dwelling-houses on pole-supports. Wherever people in a certain stage of civilization have found themselves settled on solid ground, they have had need of raised food-platforms, partly for keeping their foodstuffs safe from damage on the part of domestic as well as noxious animals, partly for the purpose of drying, smoking or roasting the food (see pp. 38, 47 and 48). If such a people, living on the edge of a lake or a swamp, had wished — for defensive purposes or some other reason — to build their dwelling-huts or other buildings in the water, then, if the bottom of the lake afforded good holding for piles, such buildings would have been constructed in the same way as the food-platforms or pole-supported granaries previously employed on firm ground (compare fig. 28 with fig. 115). Where the people in question has been lacking in sufficient skill to construct large pile-buildings in the water, or if the lake bottom was unsuited to this mode of construction, then huts were built on rafts or quagmire islands, after the manner of the swamp dwellers of Alvastra and Bangweolo.[3]

The furnishing of the Chiriguano huts is exceedingly plain. The fire-place, which forms a very necessary heating centre at night during the cold season, consists of a few stones serving as supports for the cooking pots. There is no hole in the roof for letting out the smoke, which has to find its way out through the doorway or through fissures in the walls. As a rule, the food is generally cooked on a fire outside the hut (fig. 189).

Bedsteads of the type seen in fig. 190 are to be found in nearly every hut. These bed frames are made of laths or reeds, and are covered with skins. Nordenskiöld states as his opinion that the idea of these bedsteads has not been borrowed from the civilization of the whites.[4] In the analytical treatise he has written upon this question he adduces conclusive arguments for his opinion, as it seems to me. In Central Africa, one finds bedsteads that are very similar to the Indian ones,[5] and that certainly have not

[1] Klein, pp. 88—89.
[2] Klein (1).
[3] For lake- and marsh dwelling-places in different parts of the world, see Montelius (1).
[4] Nordenskiöld (12), pp. 8—12.
[5] von Rosen (6), p. 403.

352 [114] been imitated from the Europeans. The Chiriguano also sleep in hammocks [171] made of cotton yarn, and on reed mats and skins spread on the ground. [513] Stools for sitting on I have not observed among the Chiriguano. They do, however, possess such articles of furniture,[1] which, however, must be of 353 considerable rarity. Along the walls of the hut will be seen an orderly 415 array of cooking and roasting pots, water pitchers, and pots for maize [531] beer, arranged in rows, often of exceedingly beautiful shape and with painted decoration (figs. 217—225). From wooden hooks in the roof are hanging bunches of maize cobs, pumpkins or other foodstuffs; arrows, bows, and other gear. From the roof there are also suspended clay bowls (figs. 224 and 225), used as repositories for smaller articles of value. Clothing, ornaments, and such like, are also stored in large clay jars placed on the ground. As bowls there are also used the scaly skin of armadillos, and calabashes (fig. 226).

[352] → [291] [302] [411] [415] ← [237] [824] → 354 →

Fig. 194. Man and young woman. Chiriguano. San Luis, Bolivia. Photo. E. v. R.

Outside every hut there is, as I mentioned, a fireplace which is generally used for cooking the food, unless the weather makes this im- 356 possible. The huts, as well as the open spaces between them, are kept particularly neat and clean. They are swept every day, and the sweepings are burnt. The huts are practically always free from vermin.

291 The Chiriguano m . nowadays generally wear shirt and trousers of [177] European cut (fig. 194). The poncho shirt is, however, still to be met with among this tribe[2], but only very rarely, and I have never personally

[1] Nordenskiöld (18), p. 163 and fig. 85 (12), pp. 15 and 16, and fig. 3.
[2] Nordenskiöld (12), p. 59.

7:Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

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[714]
[114]
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[171]

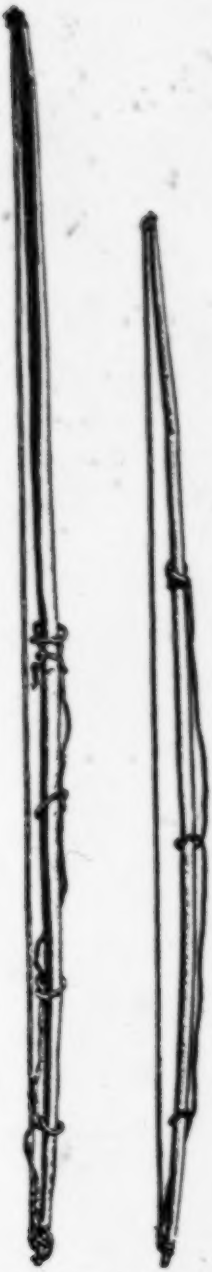

Fig. 201. Riksm. 03. 3. 850. For section, see fig. 203.

Fig. 202. Riksm. 03. 3. 851. For section, see fig. 204.

Longbows. Chiriguano. Bolivia. About 1/5.

On the left wrist they wore a small piece of wood as a protection against the blow of the bowstring.[1]

Curiously enough, the present-day Chiriguano type of bow does not seem to have been exhaustively described by anyone; not even in Schmidt's account of South American bow types,[2] otherwise so exact, is there any mention of the Chiriguano bow. The reason for this may very likely be found in the circumstance that these weapons are said to be of rare occurrence nowadays, and that such few specimens as are still being made, are mostly used as toys and on that account typologically degenerated. Twenty years ago, when I travelled through a part of the Chiriguano country, the bow was, however, not so rarely seen as a hunting weapon as now, and I collected the seven specimens now reposing in the ethnographical section of the Riksmuseum at Stockholm. Beside these, there are two Chiriguano bows brought home by Baron Nordenskiöld, one of which is a toy bow. Two other toy bows that have been brought to Sweden by Nordenskiöld belong to the Gothenburg Museum. This forms the material from which I have compiled the following description of the Chiriguano type of bow.

By their string-fastening arrangement the Chiriguano bows differ from the Chaco-Andean bow types, which latter as a rule have no neck-shaped bow-end projections for the string. On the other hand, all Chiriguano bows that I have studied, even the toy bows, have neck-shaped ends for fastening the string, a circumstance indicating that the Chiriguano bow is no acquisition from Chaco-

[1] de Lizarraga (1), p. 328. From Ed. Nordenskiöld.

[2] Schmidt (1), pp. 1027—1034.

411
[226] two barbed prongs made of some hard wood (figs. 213 and 214). The arrow in fig. 210, which has only one prong, is used both in hunting and
[824] for fish-shooting. The Chiriguano also use fish arrows pointed with a number of cactus spines.[1]

The fish spear has in later times become a very scarce implement with the Chiriguano. The only specimen obtained, as far as I know, is the one brought home by me, and now belonging to the Rikusmuseum in Stockholm (figs. 215 and 216). Erland Nordenskiöld, who has compiled
[114] a map of the distribution of the fish spear in South America, has been kind enough to inform me that the only mention he has come across in the literature, concerning its occurrence among the Chiriguano, is to be found in the account of the Viceroy Francisco de Toledo's unsuccessful expedition against these Indians.[2]

The fish spear I came upon among the Chiriguano in the neighbourhood of San Luis, has a 260 cm long shaft, made of some light kind of wood, very free from knots,[3] at one end of which two barbed wooden prongs are lashed on by means of a thin leather thong. The full lengths of the prongs are, respectively, 32.1 and 31.5 cm, and they project 20.2 cm from the shaft. One of the points has, however, been of a somewhat greater length, but has got blunted off. Both points have seven barbs on their outer sides. To ensure a perfectly firm fastening of the prongs, the fore end of the shaft has been wrapped with a piece of cloth, and over this the prongs have been lashed on.

323
I have already enumerated the various kinds of Chiriguano household
[462] furniture. Among them, clay vessels hold a very important place. The Chiriguano are clever potters. It is only the women, though, who work at this industry.

In fig. 217 we see a potter's workshop, with a number of finished and unfinished pieces of earthenware. At the hut entrance is sitting a woman, who, with a piece of stick, is giving a finish to a large pot, which has been built up of rolls of clay, and is still unburnt.

[126] In figs. 218—225 I have reproduced some typical Chiriguano clay vessels that I collected at Aguayrenda. These vessels are particularly well made. The peculiar rim warts seen on the hanging vessel in fig. 225,

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[1] Nordenskiöld (II), fig. 15 a.

[2] Acosta (1), Part I, Chap. XV.

[3] Unfortunately, during its transportation home, the handle was, unknown to me, cut into two parts.

[P 216 is blank]

323 counterparts of which are found on many ancient Peruvian clay vessels, have been more fully described by me in »En förgånges värld«.[1] The cord, by which this vessel was suspended passed round the edge, and then upwards, between the points of the rim warts. At each wart a hole has been pierced through the rim of the vessel, but these perforations are so very small that they cannot very well have been used for fixing any string by which to hang up the vessel.

Besides the clay pots here reproduced — often graceful of shape and beautifully painted — there are also plain, unpainted clay vessels for cooking and other kitchen purposes. Chiriguano ceramics are of an exceedingly great variety as to form, and many of the shapes are identical with those of clay vessels found in ancient Indian graves and in the ground of ancient dwelling-sites in those regions of the Andes that border on the present Chiriguano country.

824 415 Next to clay vessels, bottles and bowls made of calabash may be said to predominate among the household furniture of the Chiriguano. The bowls are often provided with pokerwork ornament (fig. 216).

273 [415] [531] On festivals — and also usually, though not always — the Chiriguano drink an intoxicating liquor (»chicha«, in Chiriguano: »cangui«), which they prepare from maize. In huge wooden mortars the maize is pounded to flour, which is poured into large clay vessels filled with water. This mixture is made to boil, and when it has cooled down, lumps of chewed maize dough are put into it to produce fermentation. These masticated mouthfuls of maize are usually allowed to dry in the sun, before use, and are then frequently spread on a [114] bedstead (fig. 190). This method of preparing maize beer naturally

Fig. 216. A jug for boiling maize beer. Earthenware. Bottom part and handle supported. The rest painted brownish yellow, with ornaments in dark brown (marked in black) and red (marked in fine lines). Chiriguano. Aguayrenda, Bolivia. (Cf. Nilsson, op. p. 83.)

[1] von Rosen (1), p. 322 et seq.

273
(114)

serious one as particularly disgusting, and therefore, after I had got to know how the brew was made, I could never again bring myself to drink this beverage, which in itself is rather palatable. As I have already mentioned, an intoxicating liquor is also made from the fruit of the algarrobo tree. The beer made by the Chiriguano is very highly prized by them. But, on the other hand, it does not appear that tobacco is used

276

415
531

Fig. 273. A jug for mate beer. ½. Bilwa. cp. p. 803.

Fig. 274. A mate beer dipper. ½. Bilwa. cp. p. 803.

Fig. 275. A mate beer bowl. ½. Bilwa. cp. p. 803.

Fig. 276. A mate(?)beer bowl with four holes through the rim, to which strings can be tied. ½. Bilwa. (No catalogue number.)

Painted earthenware vessels. The ground-colour of the vessels in figs. 273 and 276 is yellowish-white; of those in figs. 274 and 275, a brownish-yellow. The ornamentation is in dark brown (here marked quite black) and red (marked with fine lines). The inner sides and bottoms of the vessels are engobed.

Chiriguano. Aguayrenda, Bolivia.

using whistles of this type.[1] Nordenskiöld has advanced a theory as to the origin of the Sorire whistle, which is highly interesting. On the ground of the similarity of construction that this type of whistle has to a balance beam shown in fig. 219, with its cords for weights and load still in preservation, found in Peru, Nordenskiöld is of the opinion that the Sorire whistle is probably the beam of a balance, but that its original use has been forgotten.[2] By blowing, in play, into one end of such a balance beam, a tone was produced. This way of whistle-blowing gradually became widespread and popular, and, eventually, whistles were manufactured that were of a construction similar to that of the balance beams of the ancients. More and more the balances ceased to be used as such, and finally it was altogether forgotten that the whistle had been made as a copy of the balance beam.

Fig. 219. Scale, with a wooden beam. Probably an imperfection from a whistle of Sorire type, which forms the bar of the balance. Ground find from Peru. ½. Illustration from E. Nordenskiöld.

On my first acquaintance with this theory of the Sorire whistle having originated from the balance beam, it seemed to me so well grounded that I accepted it.[3] But afterwards I quite changed my opinion in this question, for reasons set out below. The ancient Peruvian balance referred to by Nordenskiöld is undoubtedly of a very unpractical construction. Like the Sorire whistle, the balance beam is *bored through from end to end*, and provided with *two holes, close together, for its suspension*. Even if in rough and primitive weighing there may occasionally be a certain advantage (a saving of time) in using a balance that is not too sensitive, suspending a balance from two

[1] Nordenskiöld [11], p. 183.
[2] Nordenskiöld [11], pp. 183—186.
[3] von Hornbostel [8], pp. 111—113.

7:Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

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points of support, in the way shown in fig. 229, is unsuitable, as it would enable the holder of the balance to influence, with an imperceptible movement of his hand, the balancing of the beam. Another point which strikes me as peculiar, is, that the string by which weights and objects for weighing are suspended, should be made to pass through a hole that runs the whole length of the longitudinal axis of the beam. A perforation of such a length obviously represents a good deal of labour, which, moreover, in the case of a balance beam, would be quite unnecessary. Surely the simpler plan would have been to fix a string through a small hole at each end of the beam.

Fig. 230. Ancient Peruvian wooden whistle(?). 1/4. From Nordenskiöld. One end of the tube has been stopped up, possibly on account of the whistle having been found too hard-blown with both ends open. All other known Old Peruvian objects of this type have *both ends open*.

The above were my reasons for beginning to form the opinion that the Old Peruvian balance, fig. 229, had been rigged up to do duty as a makeshift. A proper balance not being at hand, a tubular whistle, fig. 230, was pressed into service. In this way the ancient Peruvian balance, fig. 229, would — if my theory is correct — simply prove to be *a whistle that had been provisionally fixed up as a weighing instrument.*

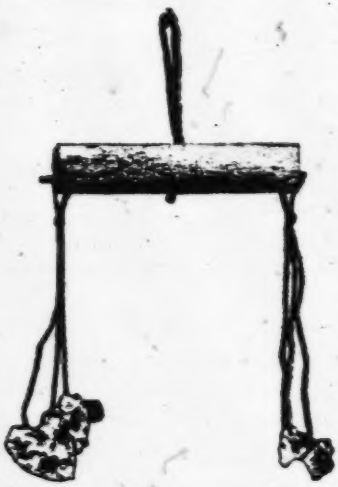

Fig. 231. Old Peruvian scale. From Hamy.

It is not impossible that this way of hastily improvising a balance — rather a dull one, admittedly, but usable for *rough weighing* — was not infrequently employed. When I acquainted Nordenskiöld with my theory as to the constructional purpose of the balance reproduced in fig. 229, he had the great kindness to send me all reproductions of Old Peruvian balances that were in his possession. Three of these retain the cord by which the beam was suspended (the poising cord), and *in these three, this cord is fixed through a hole in the centre of the beam*, fig. 231. Two of the balances are provided with cords on which to hang the weights and the objects to be weighed. *These cords are not taken through the full length of the balance beam, but attached to it by means of holes bored*

7:Rosen E-5 (1901-1902) 1924 SF10 Chiriguano SF10

in each of the lower corners of the beam ends, fig. 231. From the illustrations representing the rest of the Old Peruvian balances it cannot be seen in what way the poising and weight cords were fixed. The balances in question have, however, been published in Hamy's grand work, Galerie américaine, and from that work I have therefore endeavoured to gain information concerning this matter. There is only one balance, one without weight cords, that has been given a detailed description, and regarding this, it is stated that the beam, at its centre, has *a vertical perforation* (for the poising cord), and that the lower corners of the beam ends are each pierced with a slanting hole (›les angles inférieurs sont aussi perforés mais obliquement‹).[1] If one or more of the balances reproduced had been of a different construction in this detail, the fact would no doubt have been noted in the text.[2] From what I have adduced above, it therefore follows that the illustrative material, which Nordenskiöld so chivalrously submitted for my criticism of his theory, most essentially enhances the probability of my opinion that the unhandy Old Peruvian weighing apparatus shown in fig. 229, is an improvisation of a whistle which, as I aimed at proving in a separate monograph, belongs to a type of open whistles which is widely distributed over the American continent.[3]

As mentioned, the Chiriguano live in villages, and it is only exceptionally that one comes across isolated huts. Each village is under the authority of a headman, or chief.

Both sexes marry at an early age. Monogamy is the rule, but well-to-do men, and chiefs, may be found who have several wives. When a girl menstruates for the first time, her hair is cut short (fig. 194), and she is kept shut up in a hut until her hair has grown long again, after which she is considered marriageable. When a boy attains to puberty, a hole is made through his lower lip, and a wooden plug is put into the hole. Subsequently this is exchanged for a bead-studded ›tembeta‹ (figs. 194 and 197). Marriages are celebrated by feasting, when large quantities of maize beer are consumed. The women pass through childbirth easily, and therefore do not require many days of nursing after the child has

[1] Hamy (1), p. 110.

[2] At the British Museum there is an ancient Peruvian scale apparently of the same construction as those described by Hamy. Joyce (1) p. 130, fig. 11

[3] von Rosen (8).

/1/ Introduction

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114 Knowing only the native tribes of Mato Grosso (Brazil) personally through my previous scientific travels, I accepted with much pleasure the proposal of the Sociedad Cientifica del Paraguay to visit the Indians of the Paraguayan Chaco, and as the idea was fully supported by the Comando del Chaco, I render thanks to the Sociedad Cientifico del Paraguay for its support, to the Jefe of the Comando del Chaco Paraguayo, the section leaders, and all the others who co-operated in my expedition. I particularly thank His Most Reverend Excellency, the Archbishop of Asunción, Don Juan Sinforiano Bogarin, for the presentations which he made in my behalf before the Oblates of Immaculate Mary, whose mission is located close to the fort Esteros near the Pilcomayo River.

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[131] I set out from Asunción on August 7, 1935, and, passing the fort López de Filippis (Paraguayan Chaco), on August 15 I arrived at the fort of Toledo, where I found a great number of Izozó Indians, who had left their homes in the Parapití Valley because they had been provisionally relocated to the area of Toledo and of the fort "15 de Agosto" /15th of August/.

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114 In addition to my ethnological studies and preparations for the coming journey, I attended to the commission of the Paraguayan Red Cross to deliver clothing, goods, and wool among the Izozó Indians, who at the time were in great need. Provided by the Chaco Command at the fort of López de Filippis with two trucks, drivers and helpers, and the necessary provisions, I continued my journey on August 26, heading toward the Pilcomayo River. Beyond Corrales we met the first

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[361] Indians: they were the Churupí /Chulupi/. In Moreno too, which we reached in the afternoon, almost at nightfall, there were some Churupí who had moved from Muños to this place.

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797 On August 27 I arrived at the mission of the Oblates of Immaculate Mary near the fort of Esteros, where these fathers received me in the most friendly manner and provided their most extensive assistance to my studies of the Churupí Indians who were domiciled in or near the mission. They gave me a

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[126] large ethnological collection of objects of the Churupí Indians, which they presented to the Museo de Historia y Etnographia of The Sociedad Cientifica del Paraguay.

Ashluslay SK5
Mataco SI7
Choroti SK6
Tapiete SK13

/1 cont./

000 the Sociedad Cientifica del Paraguay. Having also visited
C the Churupí Indians at the mission near Lake Escalante, about
A 25 kilometers from the mission at Esteros, I continued my
M journey on September 5 as far as Linares, where I found a num-
114 ber of Mataco Indians, who in part lived in a town some seven
M kilometers from Linares and in part had come from the other
[361] side of the Pilcomayo River to Linares.

/2/ On September 9 I left Linares and on the next day
C arrived in Guachalla, from where I visited the Churupí camp
A /tolderia/ about seven kilometers away.
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[361]

On September 11 I left Guachalla for the fort of Cururenda,
C where I had the occasion to see the Chorote /Choroti/ Indians,
CI who were living in a camp some three kilometers from
114 Cururenda, as well as some Toba and Mataco, who came
CI from the other side of the Pilcomayo to Cururenda.
[361]

On September 15 I continued my journey as far as Oruro,
C in the environs of which I visited the Tapieté. My escort,
T Lieutenant Cabello, who knew these Indians well, took me to
114 their two camps, one of which is 15 and the other 32 kilo-
T meters from Oruro.
[361]

On September 19 I left Oruro, and passing through
C Capirendá and Carandayty, in the company of Lieutenant
114 Díego Corvalan, I arrived in Machareti, where I remained
from September 21-25. Since Machareti is a Chiriguano
town, I had a good chance at this place and at the end of my
journey, to observe this interesting Indian tribe.

Beginning my return on September 25, I passed in succes-
sion through Capirendá, Carandayty, López de Filippis, and
C Puerto Casado, arriving in Asunción on October 8.
[122]

Thanks to the great help of the military authorities, it was
possible for me to pass through large areas of the Paraguayan
Chaco during the relatively short time of two months, to get
acquainted with a large number of native tribes of the Chaco,
to take photographs of these tribes, and to make up vocabularies
000 of their different languages. Outside of the Toba, whom I met

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114 /2 cont./ outside of the Toba, whom I met only in passing, I got to know on this journey the Chiriguano and the Izozó, who, like the former, speak a dialect of the Guaraní language; the Tapieté, Churupí, Mataco, and Chorote. All of these Indian tribes are not unknown in ethnological literature. On Chiriguano history we are oriented through old documents from even the first years of the Spanish conquest, and we owe to the Franciscan missionaries, who have taught among them for a long time, quite important ethnological publications. The Churupí have been studied minutely under the name Ashluslay by Erland Nordenskiöld, and the Oblates of Immaculate Mary in Esteros and Lake Escalante are striving intensively to make ethnological investigations. I have proposed to deal with all of these tribes systematically. This survey will be made on the basis of the results of my journey, and I begin in this first publication with the Chiriguano and Izozó.

C Ce [197] C 175 114 797 A 114 101 C 121

General Information

As I said in the introduction to this work, I first met the Chiriguano in Machareti and the Izozó in the area around the fort of Toledo and in the fort "15 de Agosto," several kilometers from the former two.

C Ce 114 361

Figure 1 presents a view of Machareti, a Chiriguano town created in its present form by the Franciscan mission. When the Paraguayan army retook Machareti, it had already been abandoned by the Padres, and now a Chiriguano, in the role of commissioner /comisario/, is the chief of the town, there also being a few caciques. The houses, more or less in the form of modern ranchos (cf. Figs. 14 and 15 /see p.40 /), are on both sides of wide streets which run parallel and at right angles, as in most of the towns of the former Spanish colonies. When I was present in Machareti, there was great need /3/ among these Indians because of the severe drought which had ruined their plantings, which were some distance from the town. At the side of the ranchos are often found deposits which were structures of native houses built on sticks. Although

C 361 [632] [797] C [342] [363] C [731] C [342] 000

1/n [See P. 8 -- Analyst]

/12 cont./

C 144 [177]

Chiriguano and Chané no longer exist. "The physiognomy of the latter was completely identical to that of the former" (45).

45. Moreno II, p. 254.

C 114 141 C [113]

In addition to anthropological measurements made on four Chiriguano by Ten Kate (46), Robert Lehmann-Nitsche

46. Ten Kate. Herm.: "Matériaux pour servir à l'antropologie des indiens de la République Argentine /Materials for use for the anthropology of the Indians of the Argentine Republic/." Revista del Museo de la Plata. Vol. 12. La Plata. 1904.

in 1906 had the opportunity at the San Pedro de Jujui sugar mill to take the anthropological measurements of 40 Chiriguano men and ten women, who had come from Bolivia to work at that mill. Entitled "Estudios antropológicos sobre los Chiriguanos, /Pl. III-IV appear here/ /13/ Chorotes, Matacos, y Tobas (Chaco Occidental)" (47), Lehmann-Nitsche has

C [113]

47. Anales del Museo de La Plata, Vol. I, No. 2, (Second Series). Buenos Aires, 1908.

published the results of these measurements, together with measurements of other Indians, and added to that publication in the first 12 plates Chiriguano types photographed by Carlos Bruch. In addition to the somatic measurements, determination of skin color, eye color, and hair color and form have been published by Lehmann-Nitsche. Thirty-six of the 40 Chiriguano men stated where they had lived, and from this we know that these people had come from various regions of Chiriguano territory to the San Pedro sugar mill. There were some who had come from the northern regions, and one had come from the city of Santa Cruz de la Sierra. Others had come from the south of Chiriguano territory, for example, from the town of Carapati, located considerably to the south of the Pilcomayo River. There are named 13 Chiriguano

C 166

C [167]

[Text Continues on P. 30]

/13 cont./

166 towns from which one man had come from each one. From Charagua, Parapití, and Carapati two had come from each one, four from Ingre, five from Santa Rosa, and eight from Machareti. Unfortunately, the native soil of the Chiriguano women was not stated, and it is only said that they came from Bolivia.

141 The average height of the Chiriguano men measured by Lehmann-Nitsche is 163.4 cm., and the height of the Chiriguano women measured is 151.7 cm. This average height of the women measured is not a little less. The average height of the eight men from Machareti was only 161.8 cm., and that of the two men from Parapití only 158.1 cm. But the average height of the four men from Ingre was 169.15 cm. The tallest of the Chiriguano men measured, who had a height of 178.6 cm., had come from Ingre, and the shortest, with a height of 153.5 cm., from Machareti. The smallest woman (between 35 and 40 years old) was only 143.0 cm., and the tallest, 158.0 cm. These numbers show us that the height of different Chiriguano individuals is quite variable. Among the Chiriguano measured by Lehmann-Nitsche, the number of those who came from the same region is too small to be able to make exact deductions about the differences in height of the Chiriguano of the various regions in order to be able to clearly demonstrate the somatic influence of mixture with other tribes.

14 The photographs of Chiriguano types published by Lehmann-Nitsche show great variations among the different features and bodies, which corresponds to the fact that the present-day Chiriguano are the product of a mixture of various ethnic elements.

113 Good photographs of the Chiriguano of the southern part
114 of their territory can be found in the publication of von Rosen,
142 Ethnographical Research Work during the Swedish Chaco-Cordillera Expedition, 1901-1902 (48). Erland von Nordenskiöld

48. Stockholm. 1924.

113 /13 cont./
● 114 has published Chiriguano and Chané types (49).
142

49. Erland Nordenskiöld: Forskningar och äventyr i Sydamerica /Inquiry and Adventure in South America/. Stockholm, 1915. Ills. 14-16; 20 and 31. Nord. I. Figs. 75, 76, 79, 87, 106, 110, 111, 112, 116, 132, and Pl. 18-2 /the second figure of this number in the twenties is illegible/.

The Territory of the Chiriguano

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131 Concerning the location and extent of the territory of the Chiriguano at the time of their independence, that is, from the beginning of the 16th century to the second half of the 19th century, we have Moreno's detailed studies in two places in his work already cited many times above, the titles
C of which are: "Las tierras de los Chiriguanos /The lands of
[101] the Chiriguano/" (50). According to Moreno (51), the

50. Moreno II, pp. 79-126 and pp. 235-254.

51. Moreno II, p. 236.

Chiriguano--Chiriguano /14/ of the Cordillera in contrast to the Itatines-Guarayus and the Piritaguaris also often called Chiriguano in the literature -- from the time of the Conquest until they lost their independence inhabited the same territory, that is, the western spurs of the Andes from south of the Pilcomayo up to the lands which extend on both sides of the
Ce Guapay. The Chané, who formerly had a large well-populated
13 territory, "although they formed several partial migrations,
[648] remained in great number subject to the conquering Guaraní within the region which these latter had converted into their impregnable abode" (52). In 1883 Father Alejandro Corrado

52. Moreno II, p. 249.

Ce 131 /14 cont./ still writes that the Chané were found scattered among the Chiriguano located among the last spurs of the Andes (53).

53. Moreno II, p. 254.

C 131 [114] Even after losing their independence, the Chiriguano inhabited more or less the same territory. Having known personally only Machareti out of the territory of the Chiriguano, I here refer to the data of Erland Nordenskiöld, who came to know them in the years 1908, 1909, and 1913 and personally traveled through most of this territory, spending up to four to five months altogether in the study of the Chiriguano and the Chané (54).

54. Nord. 2, p. XII.

According to Nordenskiöld (55), the territory of the

55. Nord. 2, pp. XIV and XV. Cf. Métraux I, pp. 332 and 333.

Chiriguano extends from the region near Santa Cruz de la Sierra in the north to near the Bermejo River in the south. Now the Rio Grande can almost be taken as the northern limit of their territory. This is the land located between the boundary C Ce 131 of the Andes and the great plain of the Chaco, in the valleys of which the Chiriguano, and in part the Chané live. It can be said that this territory is inhabited wherever there is the necessary water, although it may be no more than enough for and their domestic animals to drink. The Chiriguano inhabit that territory contiguously, while the Chané today live in territories separated from one another. Thus some of them are on the Itiyuro River in Argentina, some are in Caipipendi, some on the lower Parapití River, and others near Itaú, south of the Pilcomayo River. Outside of the territory of the Chiriguano C 131 [167] which has thus been circumscribed, a few Chiriguano now live in the Santa Rosa Valley north of Santa Cruz de la Sierra, and a few fled to the Chaco after the last broken revolt in 1890, without our having any information on their stopping place.

/32 cont./

Ce 291 The cacique's wife and the eldest daughter shown in Figure 12 wear the upper part of the tipoy over one shoulder. The oldest woman shown in Figure 14 wears the tipoy in the old fashion, securing it with pins or cactus thorns above the two shoulders (139),

139. Cf. v. Rosen, op. cit., p. 201.

so that two openings remain, through which the two arms can pass. Photographs shown by Nordenskiöld (140) and v. Rosen

140. Nord. 1, Fig. 106.

show that there are still other variations in the way of wearing the tipoy.

Ce 291 126 I obtained from the Izozó three of their tipoys, two of which were woven of cotton and one of wool.

Tipoys in the Collection

I. A. 820.	Izozó	Of cotton.	Length	1.26 m. (Fig. 113.)
I. A. 832.	"	Of wool.	"	1.61 m.
I. A. 838.	"	Of cotton.	"	1.37 m.

C Ce 291 /33/ One special feature of these tipoys of the Chané-Izozó and also of the Chiriguano in comparison with all the tipoys that we know from other tribes is their great size, and we can doubt that these tipoys were so large in past times. Ce [114] The indication by Viedma (144) that the Chiriguano women

144. Viedma, op. cit., p. 134. According to Nordenskiöld.

wore only a piece of cloth around their hips implies the opposite answer. I shall concern myself with the manufacture and the decoration in the chapters on the technique of weaving and art.

C 301 [126] /33 cont./

Ring (moãkaregua) in the Collection

I.A. 1321. (Chiriguano.) Gift of Father Ayala Solis. Diam. 2cm.

Finally I shall mention here a ring obtained by Father Ayala Solis from the Chiriguano and donated by him to the Museo de Historia y Etnografía del Paraguay. The ring was made of metal from a cartridge shell.

Ce 291 The cacique of the Izozó shown in Figure 12 wears sandals (Chir.: mbipása. Izozó: pãapá). Generally the men and women go around barefoot. But both sexes use sandals if they are to walk on stony or thorny ground (146).

146. Nord. 1, p. 203. Nord. 2, p. 69, Fig. 23. V. Rosen, op. cit., p. 207.

C 291 19 The region of distribution of the sandal in South America leads us to assume that the Chiriguano did not first receive this item from the whites, but earlier, and that it came from the culture of the ancient Peruvians (147).

147. Cf. Nord. 2, p. 69.

Treatment of Illnesses and Burial

Ce 743 Ce [114] C [114] In the Indian settlement in Toledo there was arranged a small hospital in which the sick Izozó were receiving medical treatment. For that reason I did not have the chance to make investigations among them about the native treatment of the illnesses of these Indians. Nor did I have the chance to make such investigations in Machareti. Therefore, I refer to the investigations /34/ Nordenskiöld and Métraux made on this subject (148), and I wish only to

C Ce 756 191

148. Nord. 1, pp. 216 and 217. Métraux 1, pp. 480-488.

mention here that among the Chiriguano and Chané, as among

/38 cont./

Because the ancient Peruvians raised various breeds of dogs, we can assume that the Chiriguano received the dog as a domestic animal from the ancient Peruvians. We can assume the same with regard to the duck, which was also raised by the ancient Peruvians. Therefore I do not include the duck among the domestic animals that these Indians received from the whites, as Nordenskiöld does. We do not know whether the Chiriguano in times past might have raised the llama. From the fact that guanacos exist in the territory located between the Parapití and the Rio Grande, we can deduce that the raising of that other species of Euchenia might have been possible in that country.

The Chiriguano very early received such European domestic animals as the horse, the ass, the cow, sheep, goats, hogs, and chickens, which they captured in great quantities in their continual raids on the Spanish settlers. In 16th century documents there are repeated complaints about the extensive stealing of livestock by these Indians. Today the Chiriguano and Chané do not have many horses, and they have never had the /39/ pronounced character of a nation of horsemen. The true weapons of war were formerly a long bow and arrows which were also long, which cannot be used by a mounted horseman, in addition to which their homes were formerly in the hills in regions which the Spaniards could not enter on horseback. In certain parts of their territory the raising of cattle has some importance (181). More general is the raising of sheep, pigs,

181. See Métraux I, p. 340.

and chickens. Today one sometimes also finds among them guinea hens and turkeys (182).

182. Nord. 1, p. 137.

8: Schmidt--109 E-5 (1935) 1938 SF10 Chiriguano SF10
Chané SF8
Izozo

/45 cont./

A small nest of a species of wasp serves as a container for the lighted end of the wick. The fire is produced by striking a flint with a piece of a modern metal file.

In a Chané legend recorded by Nordenskiöld (216), it

216. Nord. 1, p. 252.

turns out that the Chané formerly produced fire by rubbing one little stick upon another. According to this legend, two boys and a girl received fire from an old man, who is the sun. The bird Huapi advised them to take good care of the fire. Should it once go out, they would have to make new fire with the "tata," which is the /46/ implement for making fire by rubbing two sticks together. The cacique of the Izozó, when I asked him about this implement, also knew it well and called it by its name in Guaraní. Nordenskiöld once saw a Chiriguano who had no matches with him make a fire with such an implement (217).

217. Nord. 1, p. 50. Cf. Métraux 1, p. 354.

Ceramics

The great development of ceramics among the Chiriguano and Chané, the very great variety of forms of their diverse vessels and their ornamentation have long excited the interest of ethnologists. Nordenskiöld, who gives the number of variations in the forms of the vessels of these Indians as more than 50, has published a great many of them in outline and also presents the ornamentation of many of them in sketches (218). Eric v. Rosen has also shown numerous

218. Nord. 1, Figs. 77; 78; 82; 92; 113; 117; 121, and Plate 19. Nord. 2, Figs. 38-48.

8: Schmidt--110 E-5 (1935) 1938 SF10 Chiriguano SF10
Chane SF8
Izozo

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/46 cont./ Eric V. Rosen has also shown numerous Chiriguano vessels in drawings in his work already cited (219).

219. V. Rosen. Figs. 218-225.

Métraux describes and shows by drawings a great number of Chiriguano baked clay vessels (220).

220. Métraux 1, pp. 370-374; pp. 382-428; Plates 16-19 and 24-60.

A publication by Felix F. Outes deals particularly with Chiriguano ceramics (221).

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[113]

221. Felix F. Outes: La ceramica Chiriguana /Chiriguano Ceramics/." From the Revista del Museo de la Plata, Vol. XVI (second series, Vol. III), Buenos Aires, 1909, pp. 121-136.

C
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Because formerly in the museum of the Sociedad Cientifica del Paraguay we had only four baked clay vessels and a piece of a handle from the Chiriguano, which Doña Maria F. de Casati collected among them and presented to the museum, I had a special interest in filling this gap. With some effort I managed to acquire from the Izozó in Toledo 41 Chiriguano vessels, and from the Chiriguano in Machareti, 55 of them, and with rather more effort I managed to bring them back whole and with their designs in good condition through the long trip to Asunción.

These baked clay vessels collected by me also show great variation in their form and ornamentation. But these diverse variations can be reduced to several groups, according to the purpose for which they were intended.

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The Chiriguano and Chané baked clay vessels may serve very different ends:

1. To cook foods and liquids.
2. To fry /fritar, literally "to frit"/ foods.
3. To steam maize meal.
4. To carry and keep water.

/54 cont./

C Ce 283 323 point out here a difference between the baked clay whorls of the Izozó and those of the Chiriguano with regard to their manufacture. The whorls of the latter are made of pieces of clay from any broken vessel, . by filing them round and perforating them in the center, while the whorls of the Izozó consist of a small disk with different variations in form, also perforated in the center, but made of baked clay especially for that purpose.

C Ce 323 Concerning the pottery technique of the Chiriguano and the Chané, we are well instructed by the data given by Nordenskiöld, S. Linné, Métraux (236), and Campana (237).

C Ce [113] 236. Nord. 1, pp. 244 and 245. S. Linné: The Technique of South American Ceramics, Göteborg, 1925. Métraux 1, pp. 382-388.

C [113] 237. Campana (Doménico del), "Notizie intorno ai Ciriguani /Information concerning the Chiriguano/," Archiv per l'antroopologia e la etnologia, Florence, Vol. 32 (1902), p. 382.

C Ce 323 114 Especially noteworthy among these is the description of the manufacture of baked clay vessels by the Chané on the Itiyuru River, which Nordenskiöld studied in its entire procedure. In the book written by Linné, entitled The Technique of South American Ceramics, we find, in addition to the systematic arrangement of the observations made by Nordenskiöld among the Chiriguano and Chané, important data on the results of chemical analyses and microscopic observations which Linné made on the vessels of these Indians. According to this information, the procedure for manufacturing these vessels is the following:

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The first condition for the manufacture of baked clay vessels is the availability of suitable clay which has sufficient plasticity so that the vessel can be modeled and fired without being broken. Only a clay with special qualities can meet

8: Schmidt--138 E-5 (1935) 1938 SF10 Chiriguano SF10
Chané SF8

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these two requirements. Generally it is necessary to correct the defects of the available clay, fixing it by the addition of other substances. Thus the Chiriguano and Chané add to the clay pieces of crushed baked clay. The Chiriguano women in Tarapayu like to use as such an additive, which they call "takupe," pieces of baked clay of ancient origin which they find in great number in their territory and which substance also contains, according to microscopic investigation, pieces of baked clay added to the clay (238).

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238. S. Linné, op. cit., p. 36, Fig. 2, and p. 70. Nordenskiöld, Erland: Forskningar och äventyr i Sydamerika /Research and Adventure in South America/, Stockholm, 1915, p. 34. Nord. 1, p. 284.

From the quality of the substance of a baked clay vessel of the Chané of the Parapití which is in the Göteborg museum, it turns out that these Indians also add sand to the clay, in addition to pieces of crushed baked clay (239). By microscopic

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239. S. Linné, op. cit., p. 33.

analyses of sections of vessels, Linné was able to demonstrate /55/ that pieces of baked clay were added to the clay of the Chiriguano. As a result of these analyses, he points out the following: "Microscopic section analysis of Chiriguano ceramics have shown the materials to contain, besides small quartz grains and larger grains of other minerals, particles of the same colour as the ground-mass, but with distinct outlines. These are due to ground potsherds. There are also some very dark particles, as well as lighter ones, and they, too, are potsherds. The variation as to colour is due to the vessels often in the firing, becoming quite differently coloured in their outer and inner layers" /cited in English/ (240).

240. S. Linné, op. cit., pp. 37 and 68.

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Nets in the Collection That Are Made with Loops and without the Use of Knots

I. A. 555-566. Net for carrying loads (Chirig.). Lgth. 0.93 m. 1.80 m.
I. A. 567. " " " " " " 1.15 m. (Figs. 134 and 143.)
I. A. 568. " " " " " " 1.20 m. (Fig. 144.)

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From the Chiriguano I obtained several nets for carrying burdens, which are made without using knots, by connecting the thread in the fashion illustrated by Figures 143 and 144 and which is common among many tribes of the Chaco, as happens among the Tapieté, Matako /Mataco/, Toba, Chorote /Choroti/, and Churupí /Chulupi/.

The great number of nets that I acquired from the Izozó are made with knots without exception, and we must therefore assume that these Indians are not familiar with or do not use the technique of making nets with simple loops and without applying knots, and that this technique, called "Schlingtechnik" in German, is used only by the Chiriguano or a part of them. Nordenskiöld does not mention this technique among the Chiriguano, and in the synoptic outline in which the several techniques of making nets are illustrated the Chiriguano are not mentioned in Column 5 among the Indian tribes which use the technique of making nets without applying knots. Of the burden-carrying nets made of caraguata thread that I acquired from the Chiriguano, ten are made without knots being applied, by the technique called "Schlingtechnik," and only seven by applying knots by the technique called "Knotentechnik." We can therefore assume that this part of the Chiriguano at least uses the technique of making nets without applying knots, although this opinion is contrary to that of Nordenskiöld, who says (278) that

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278. Nord. 2, p. 116.

all of the nets made by this technique found among the Chiriguano and the Chané were acquired from the Chaco Indians.

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534 edge, puts forward against Nordenskiöld's deductions his opinion
174 that the ancient Peruvian objects of this form might originally
171 have been flutes and that they might have been used only exceptionally, in the event of necessity or only secondarily, as
C balance beams. Among the objects of this kind in the ancient
[114] Peruvian collection of the museum in Berlin so many specimens
C clearly show that they are balance beams that I cannot say that
[179] I agree with this opinion by V. Rosen (301). We must agree

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301. Cf. Max Schmidt, Kunst und Kultur von Peru /Art and Culture of Peru/, p. 99, fig. p. 544, N. 8-10.

with V. Nordenskiöld's opinion that these wooden objects used by the ancient Peruvians as balance beams may have been accepted by the Chiriguano, not as balance beams, because the Chiriguano did not have the need to weigh anything, but as flutes. We must mention that with this kind of flute, open at both ends, two different sounds can be produced, depending upon whether the lower hole is left open or is closed with the finger.

The two Chiriguano flutes made of cane have six holes for varying the sound and one hole, at one side, for the mouth.
C Cf. Figure 39a /see Fig. 34a, p. 89/. Nordenskiöld, who shows
CC such a flute in a drawing (302), is of the opinion that the
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302. Nord. 2, Fig. 36 A.

Chiriguano and Chané received this kind of flute from the mestizos or whites, because such flutes provided with a hole at one side for the mouth do not exist among the other Indians of South America or among the ancient Peruvians.

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Ee 53! Figure 33a, which corresponds, as does also the form of this flute, completely to ancient Peruvian models. Also, the surface of the Chiriguano cane flute L.A. 494 (cf. Fig. 34a /see p. 85/) shows some incisings.

One of the removed decorations is shown in a drawing by Nordenskiöld, who found it on a woman's arm (916).

916. Nord. 1, Fig. 108.

Social Conditions among the Chiriguano and Chané

Ee 114 With regard to the social conditions among the Chiriguano and the Chané-Izoseño, I am unable to add to the few data which we know on this subject because the situations in which I found myself when with these Indians were not appropriate for such investigations.

Ee 115 122 126 /85/ Among the Izoseño whom I found in Tricdo there were some who were designated as cacique. To one of these, who spoke Spanish perfectly, I owe the vocabulary of the Izoseño language which I wrote down. I met the Chiriguano only in Macharetí, where they had lived for a long time under the supervision of the missionaries and, at the time of my trip, under the chieftainship of one of their own fellows who exercised the functions of a commissioner /<u>comisario</u>/. Two other Chiriguano Indians whom I met in Macharetí were identified as caciques.

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Ee 129 In order to complete my statements about the Chiriguano and the Chané-Izoseño, I must make a resumé of what we know from the literature regarding the social conditions of these Indians, referring to Moreno's statements, which are based on old documents, as well as those of v. Nordenskiöld, which are based upon his own investigations.

Ee 170 64 243 Naturally, many of the old Chiriguano and Chané social institutions have been lost since they lost their independence from the whites. Also, the power of the great caciques has diminished appreciably since they have been dependent on the whites. When Nordenskiöld